

FIG. 1

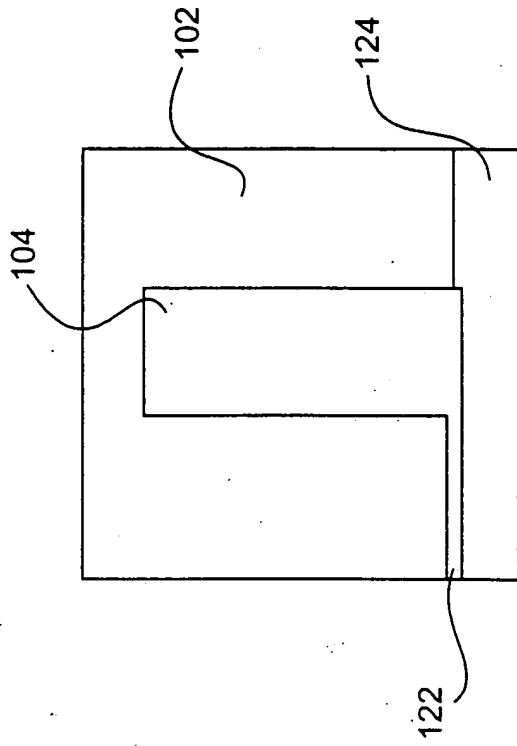


FIG. 2a

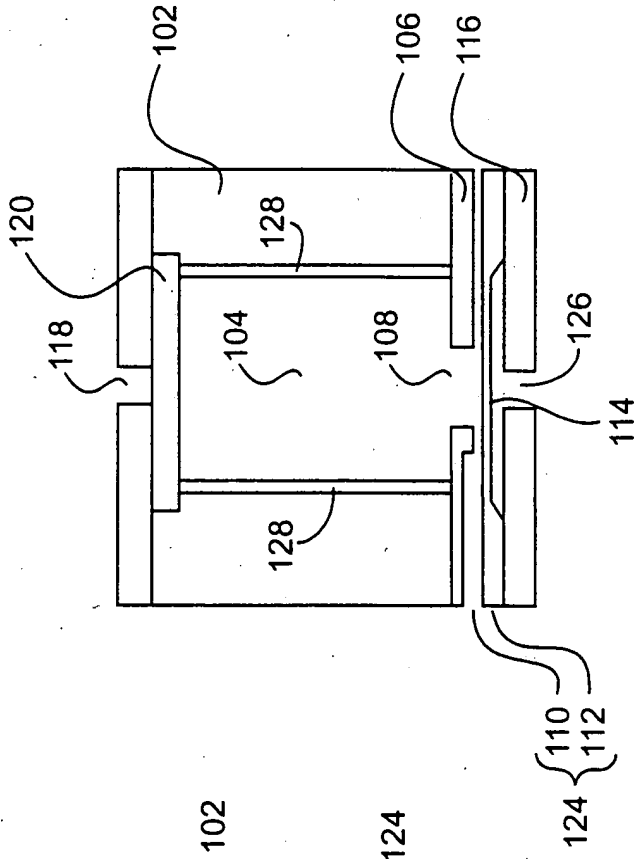


FIG. 2b

FIG. 2a & 2b

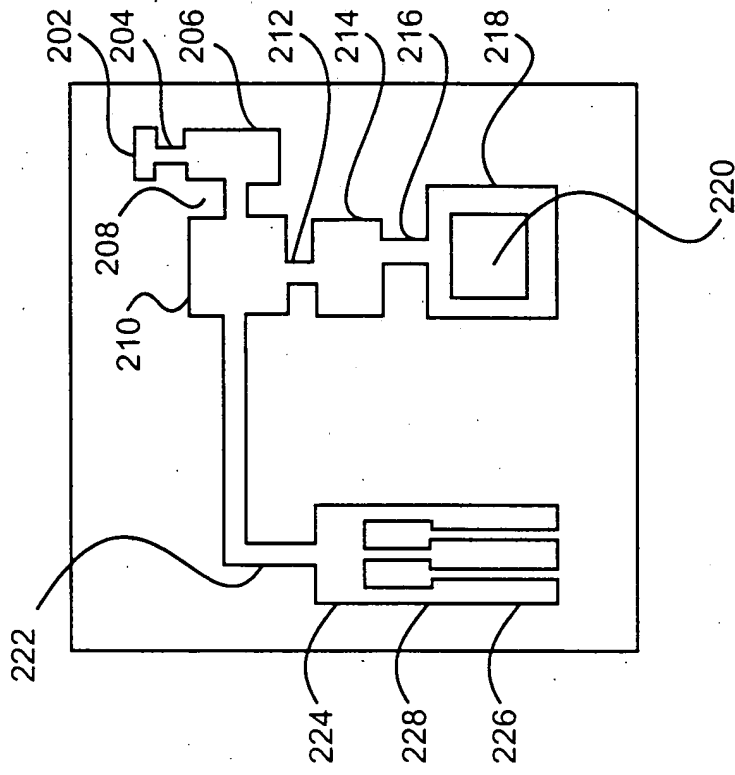


FIG. 3

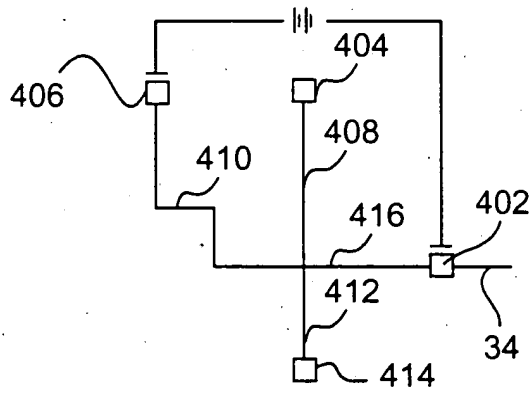


FIG. 4a

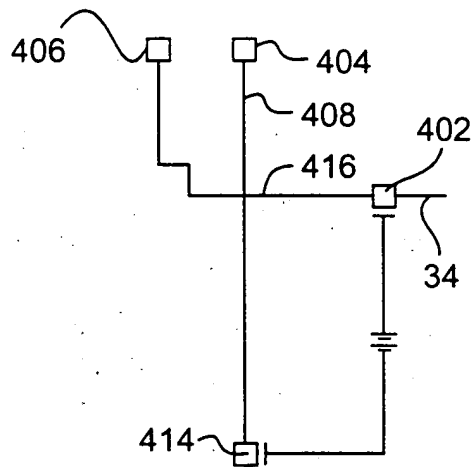


FIG. 4b

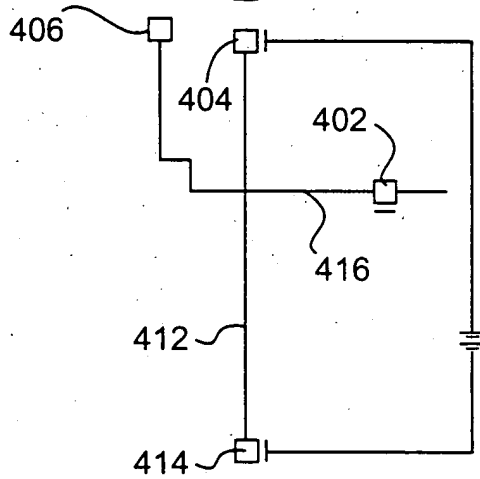


FIG. 4c

FIG. 4a-4c

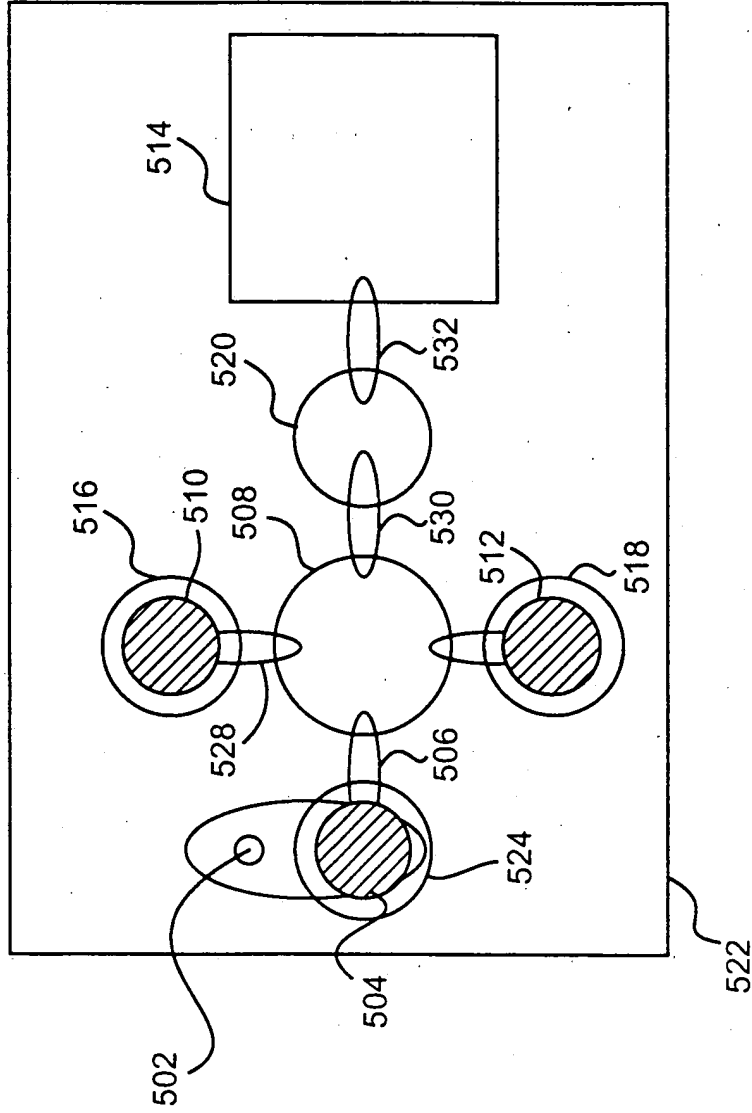


FIG. 5a



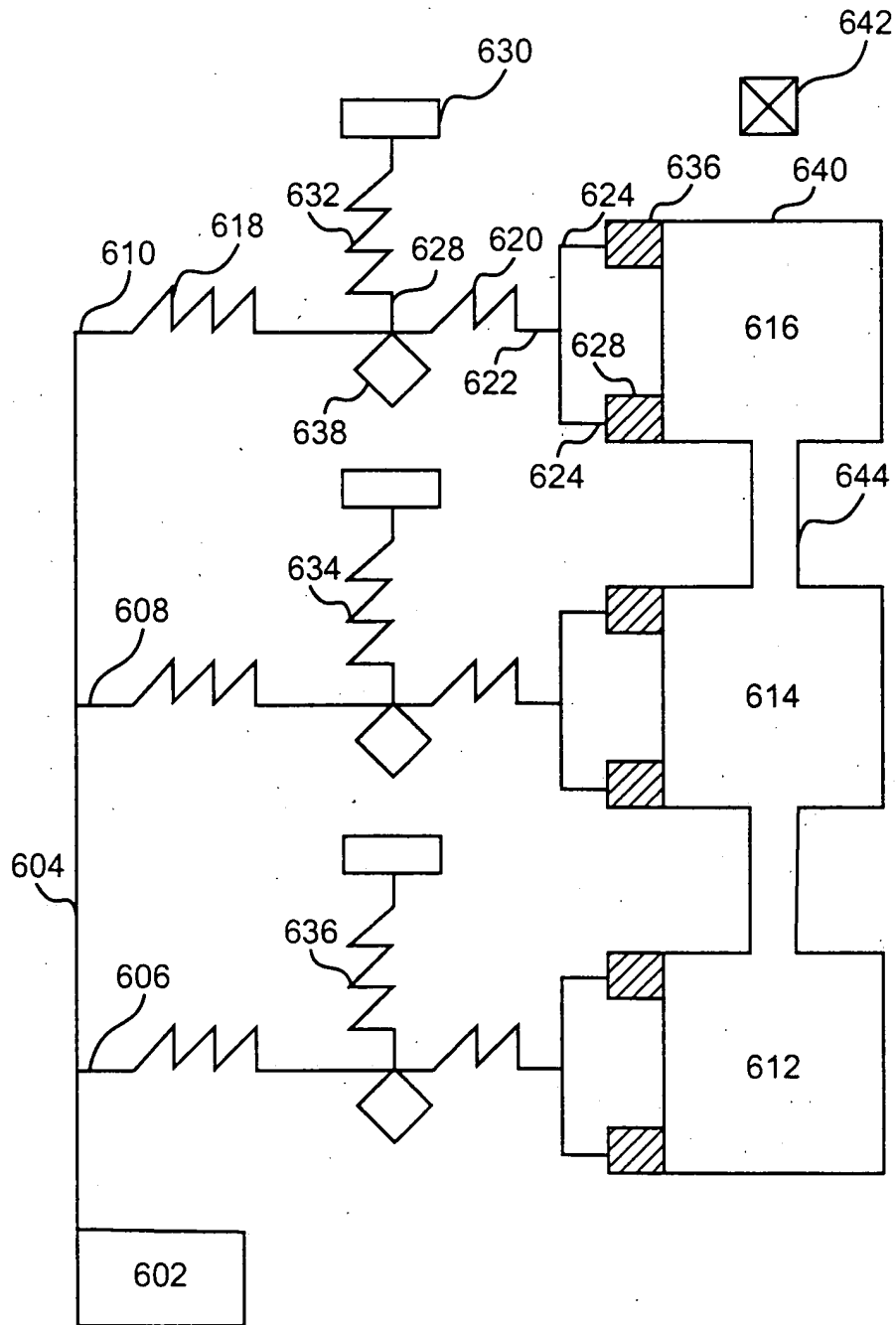


FIG. 6a

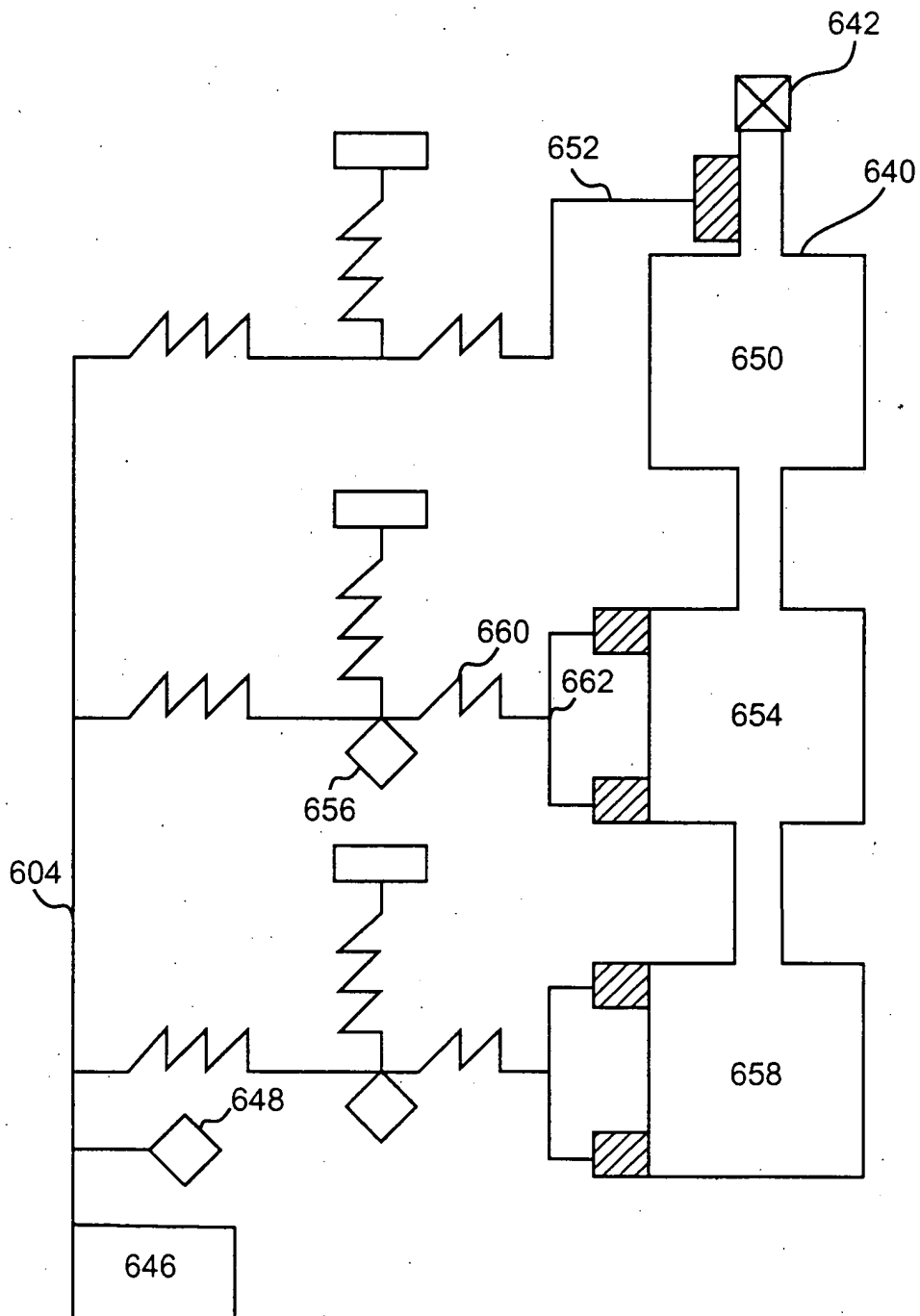


FIG. 6b



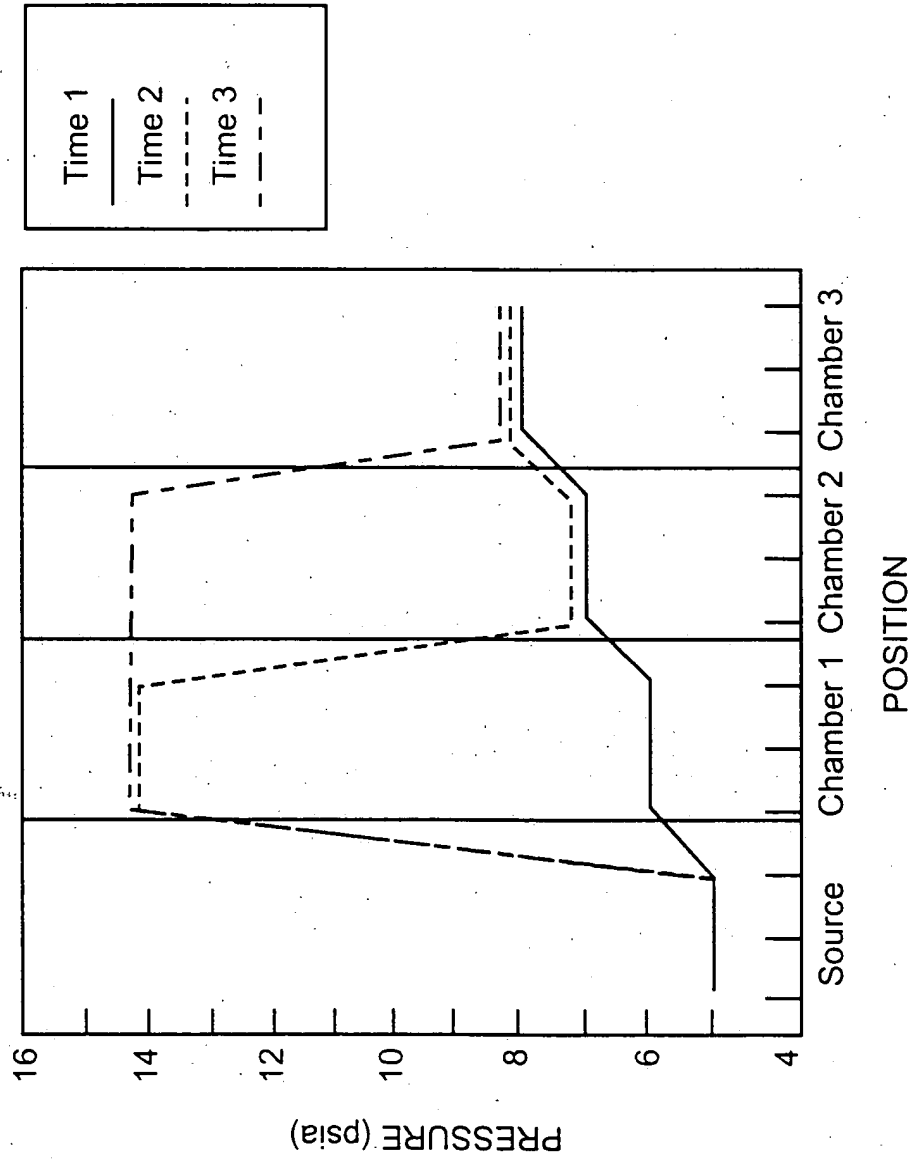


FIG. 6C

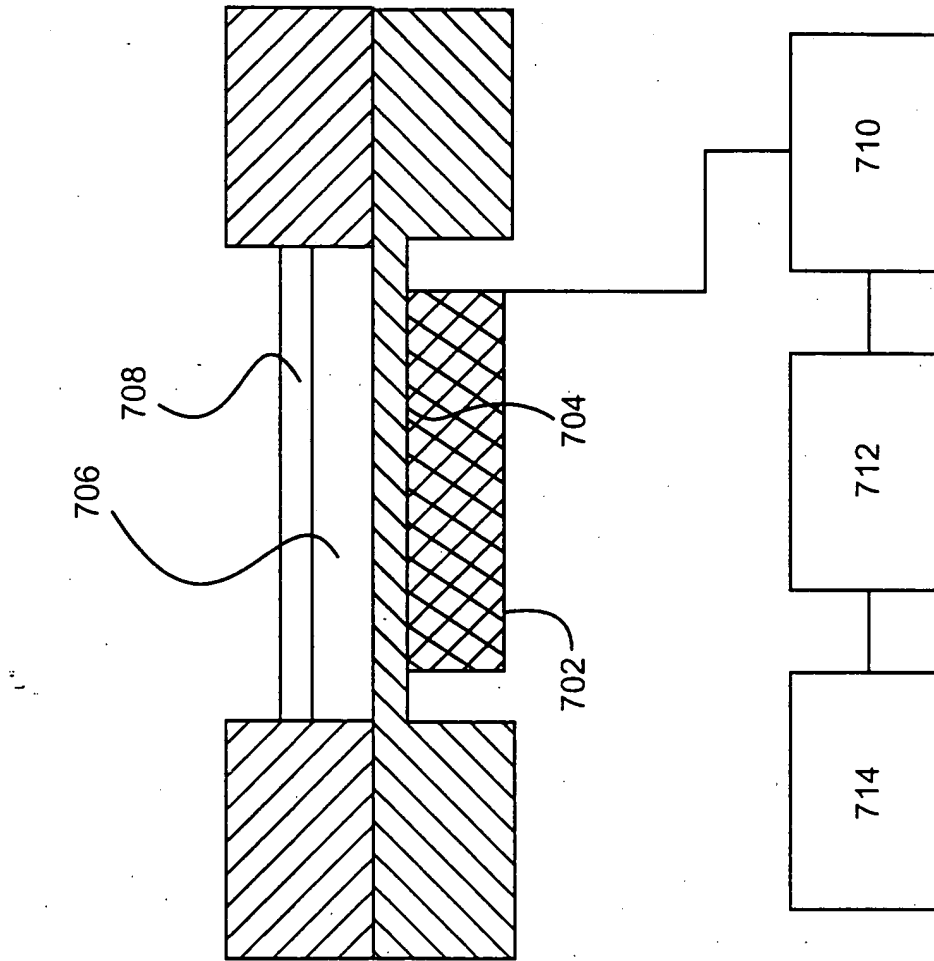


FIG. 7a



FIG. 7B

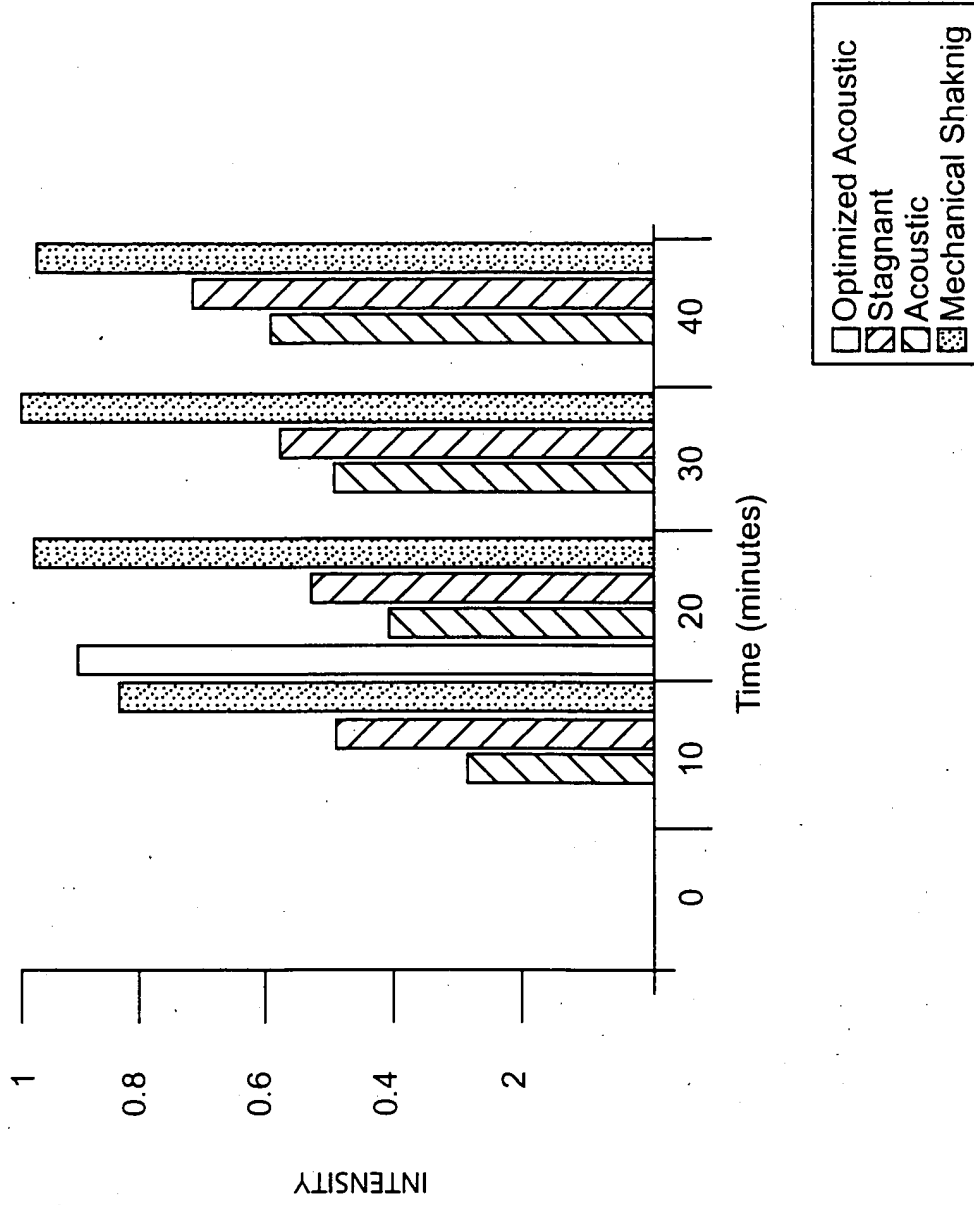


FIG. 7c

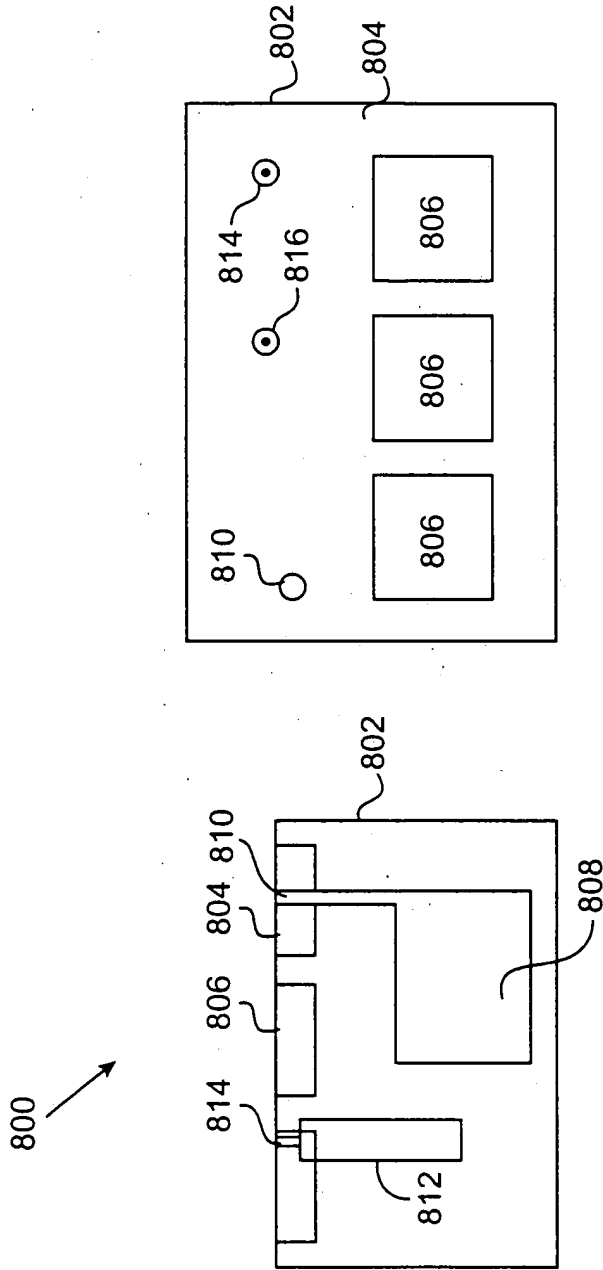
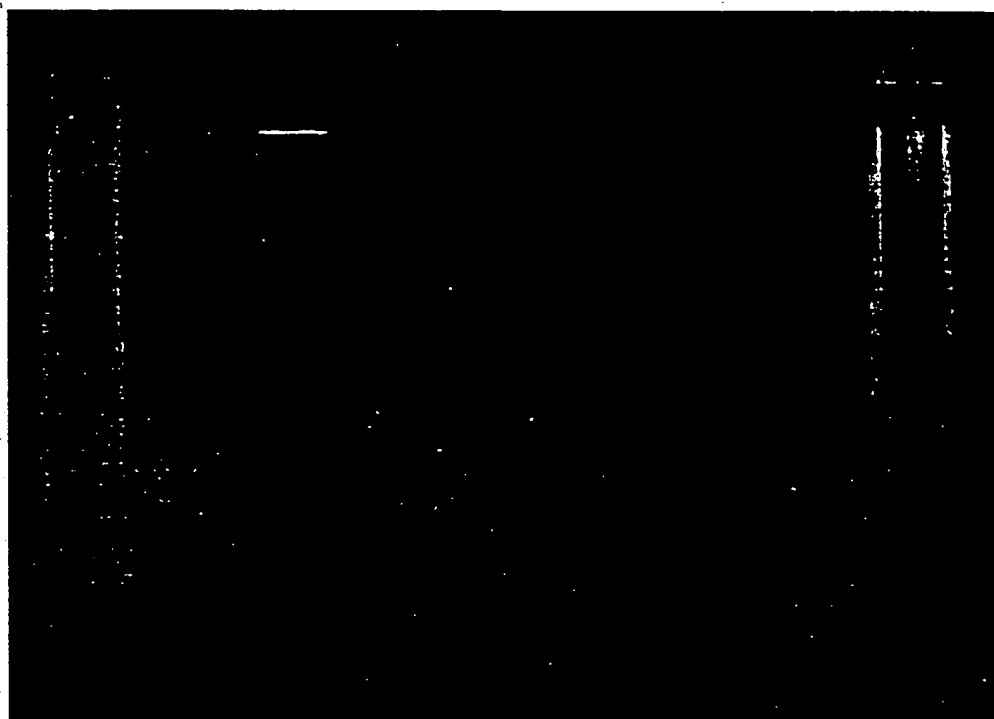


FIG. 8a

FIG. 8b

FIG. 8a & 8b

t = 0 5 10 30 60 120 minutes



Correct Call Rates:

74%	95.8%	95.9%
95.9%	95.5%	83%

FIG. 9a

Standard



Tube Based

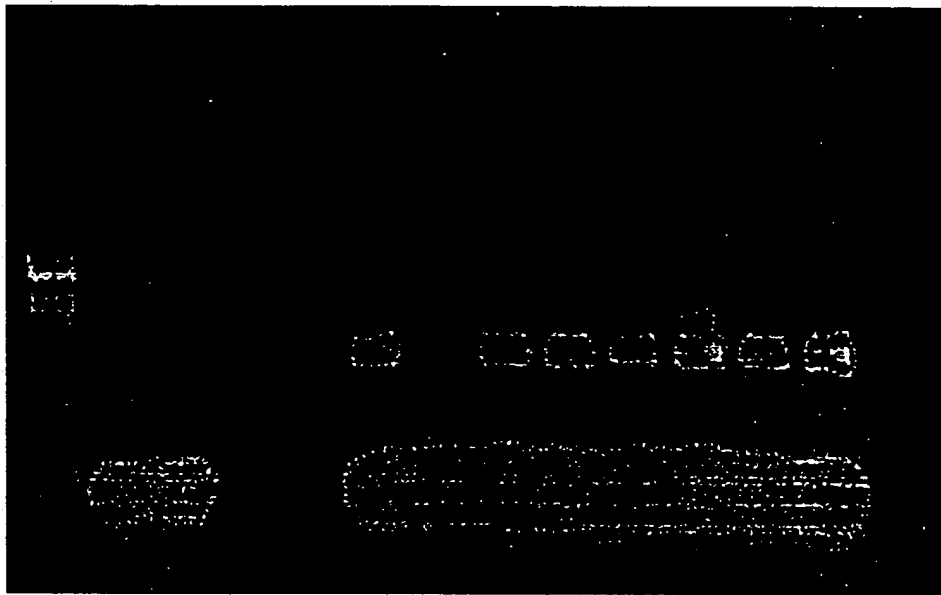


FIG. 9b

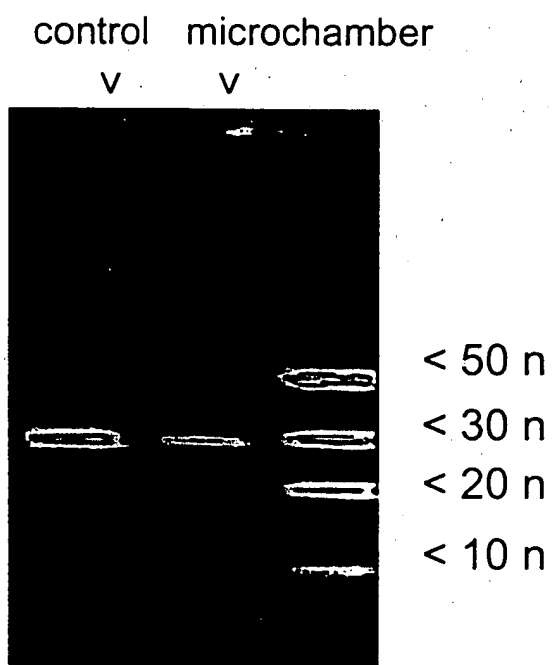


FIG. 9c



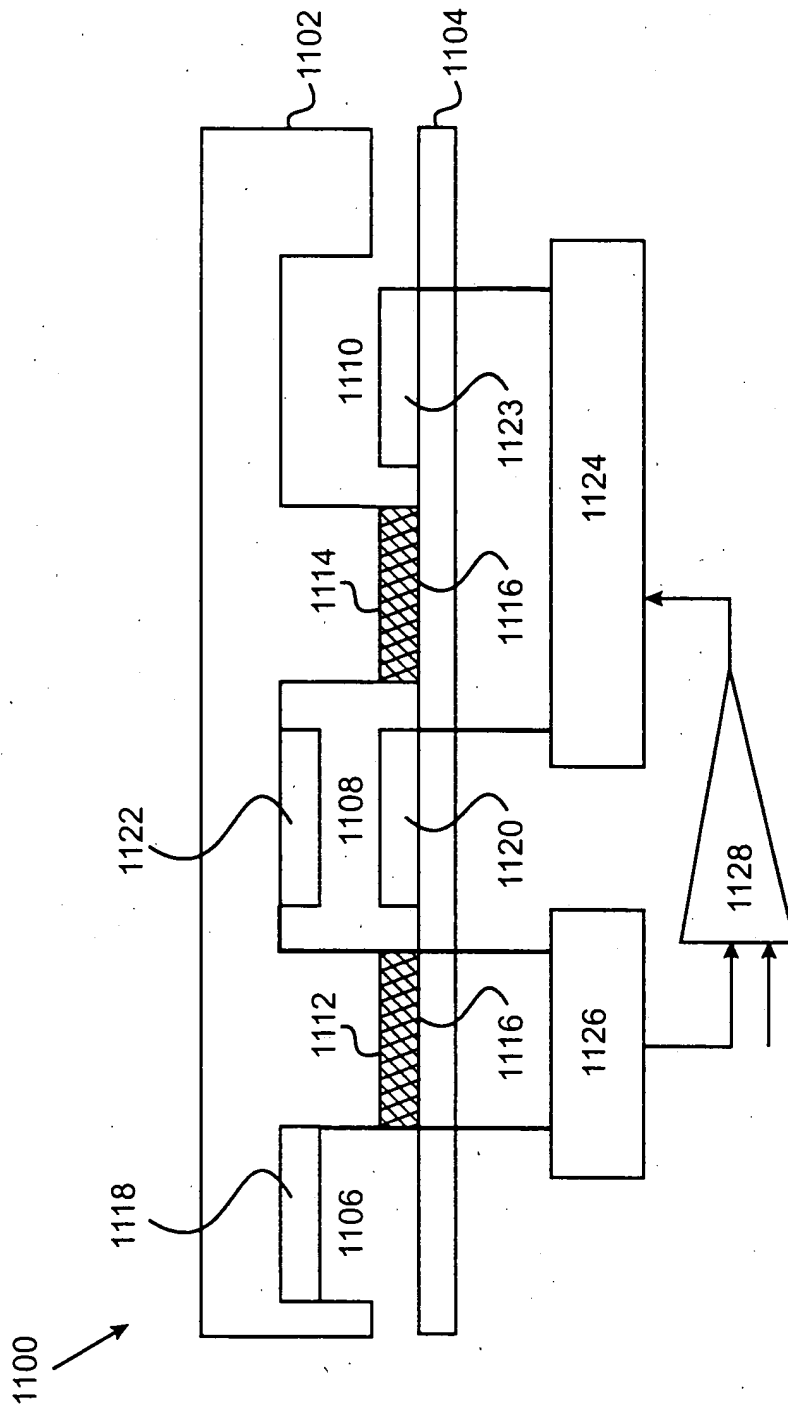


FIG. 10

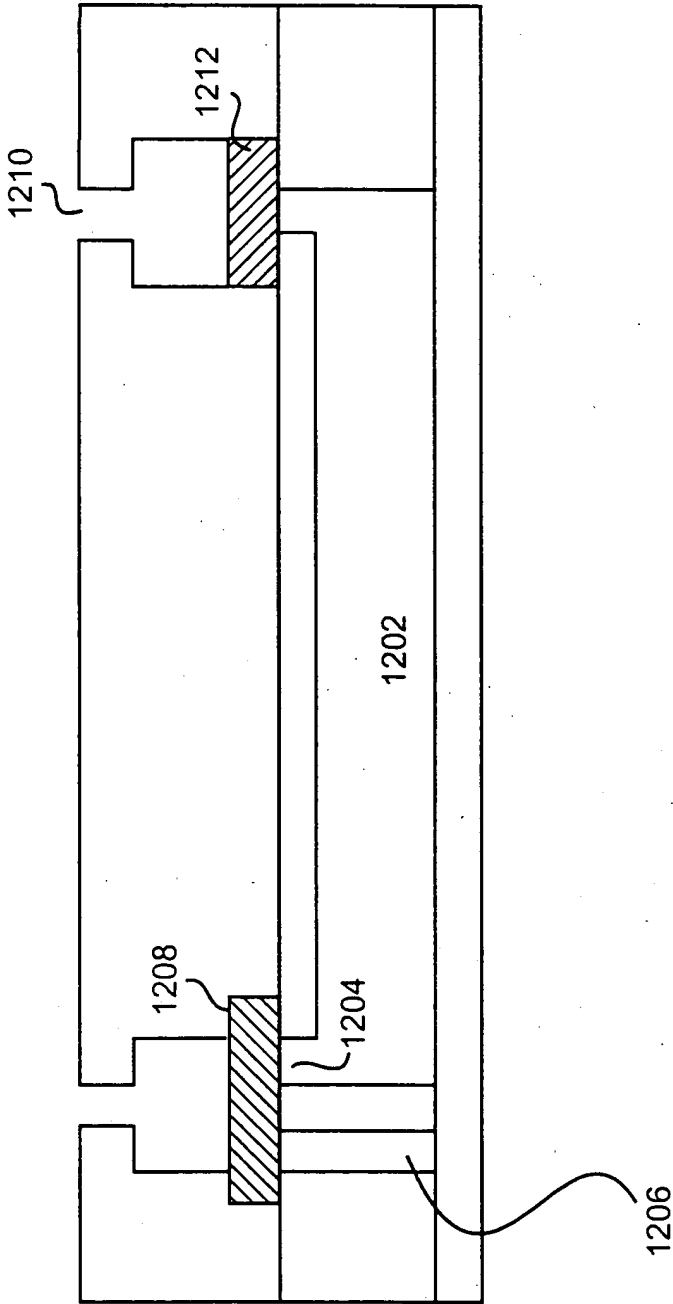


FIG. 11A

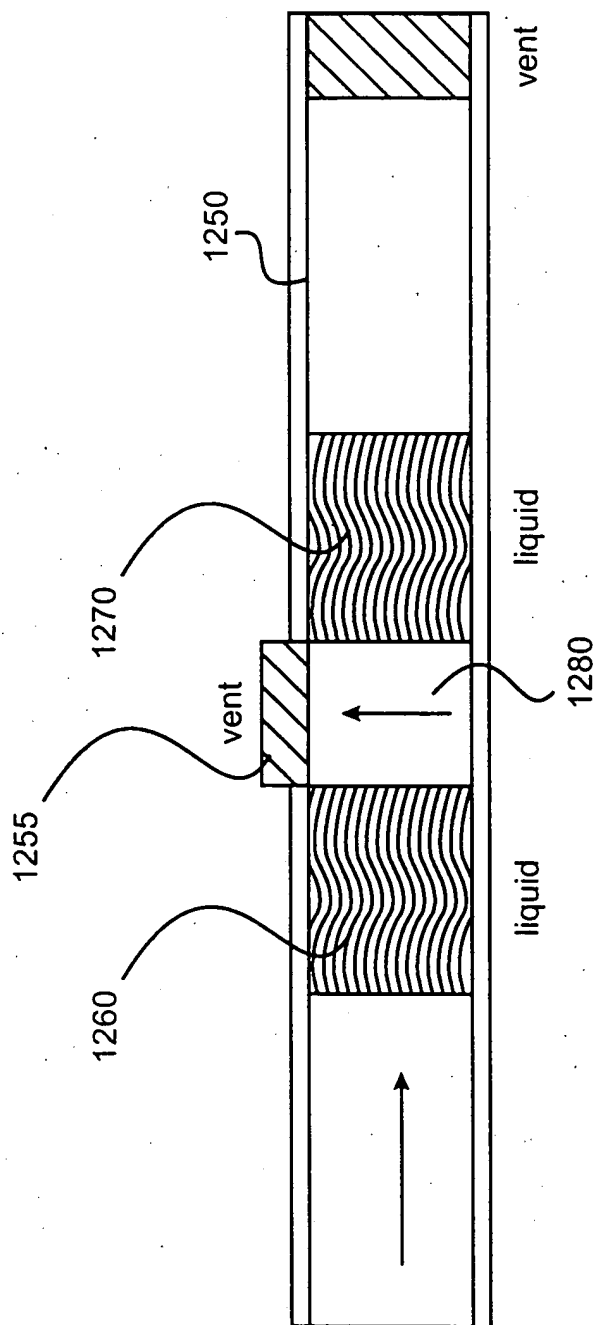


FIG. 11b

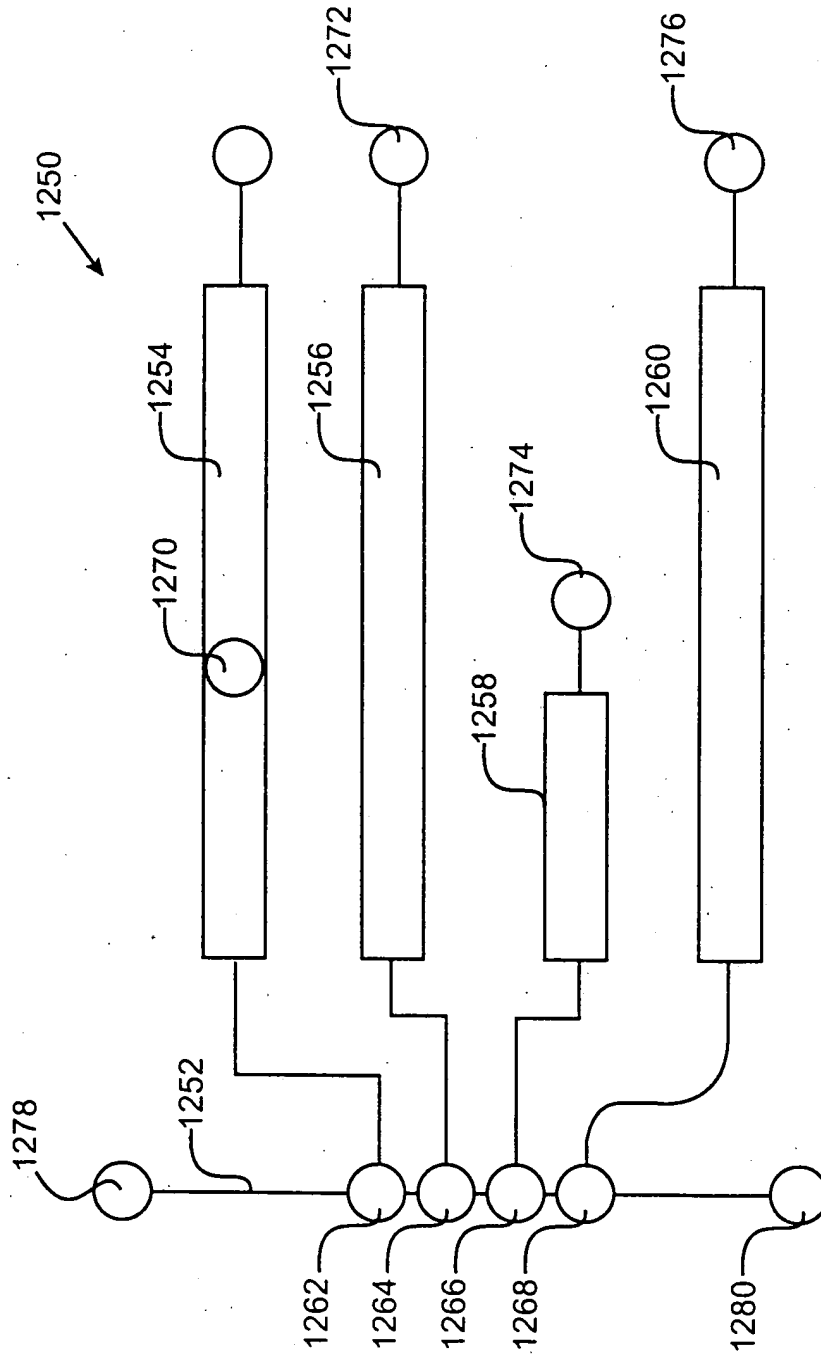


FIG. 11c

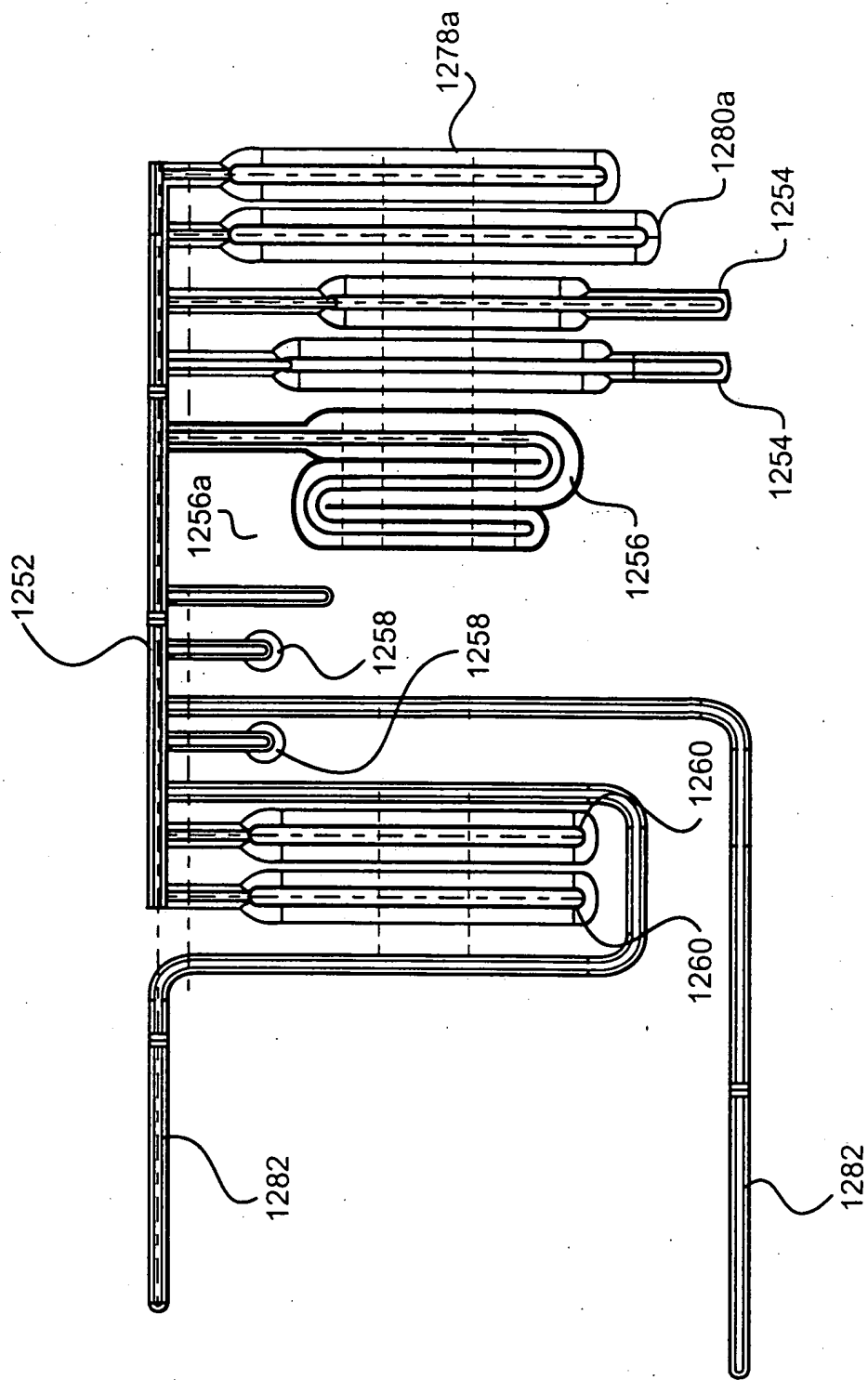


FIG. 11d

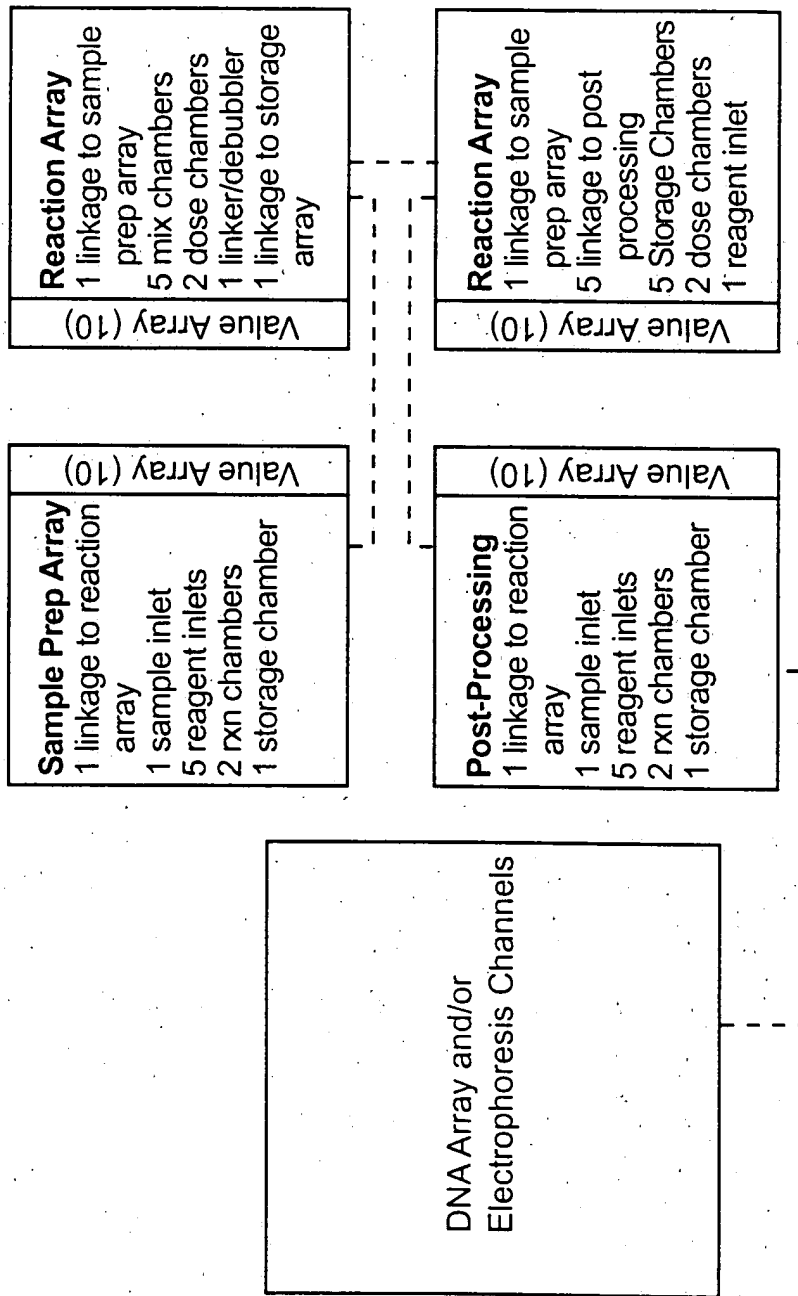


FIG. 12

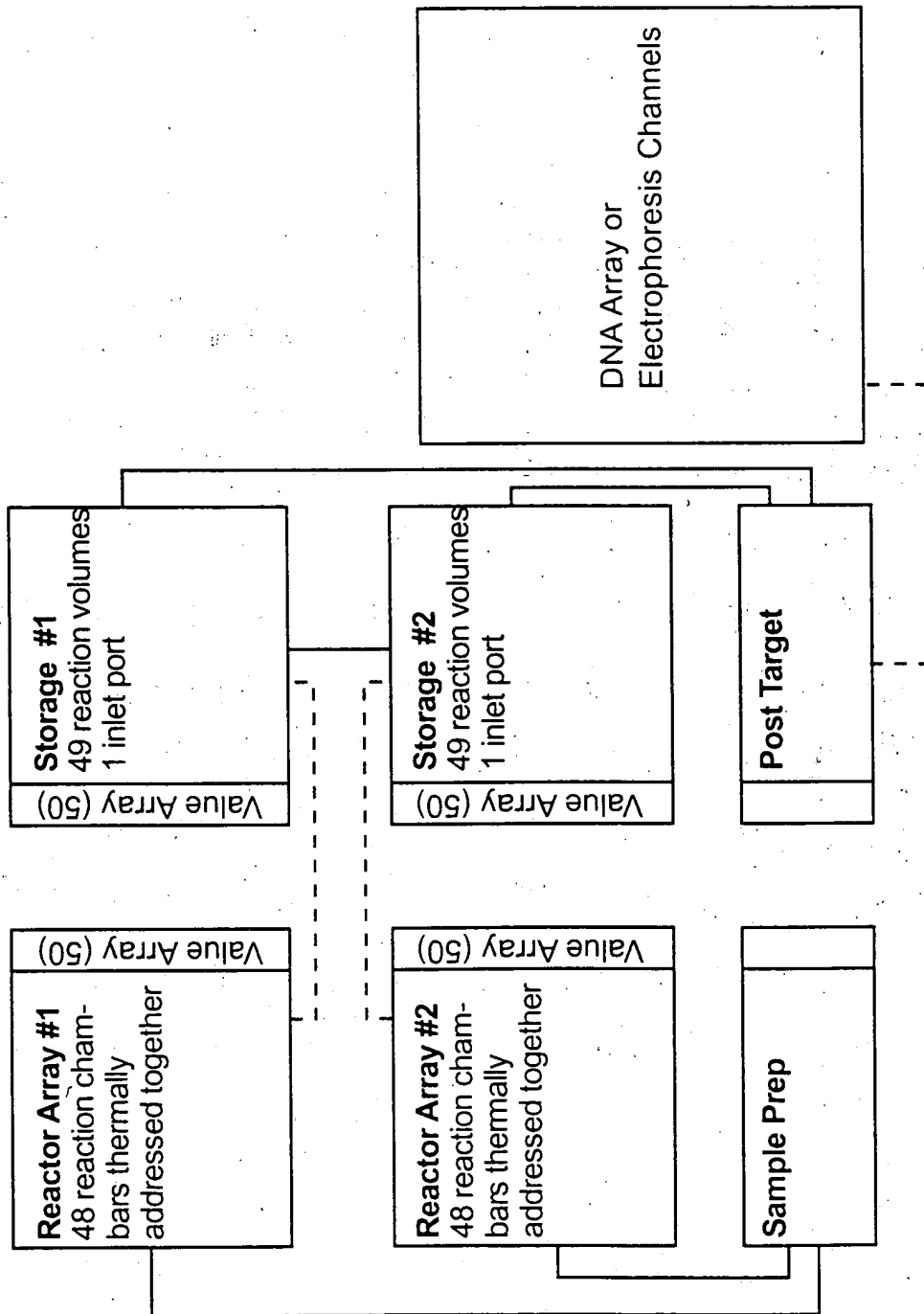


FIG. 13

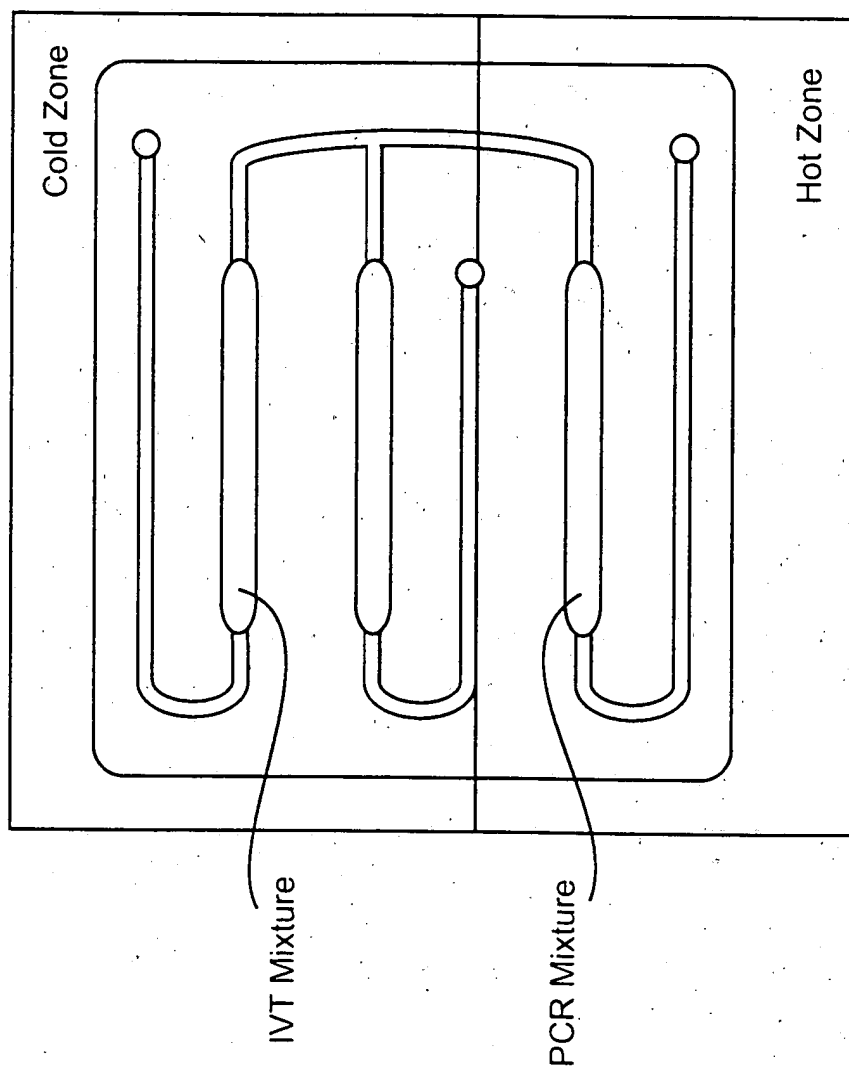
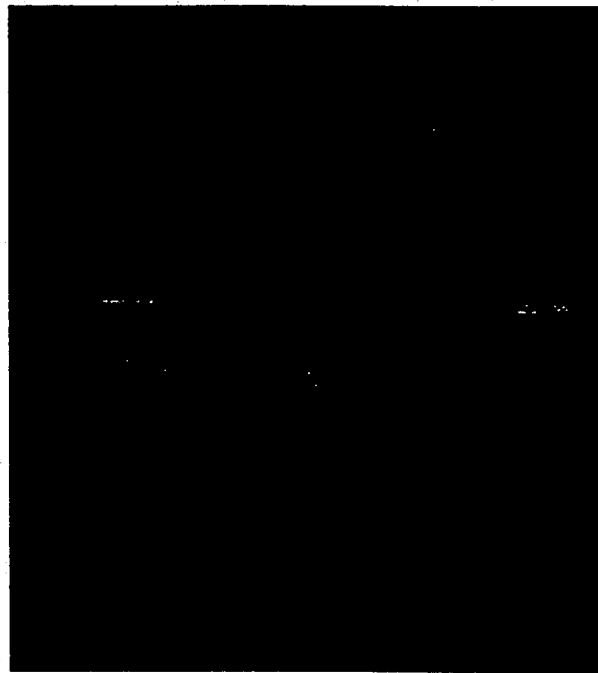


FIG. 14a



Control   Microchamber

PCR   PCR   IVT   IVT   PCR   IVT  
◆   ◆   ◆   ◆   ◆   ◆



< 50 n

< 30 n

< 20 n

< 10 n

FIG. 14b

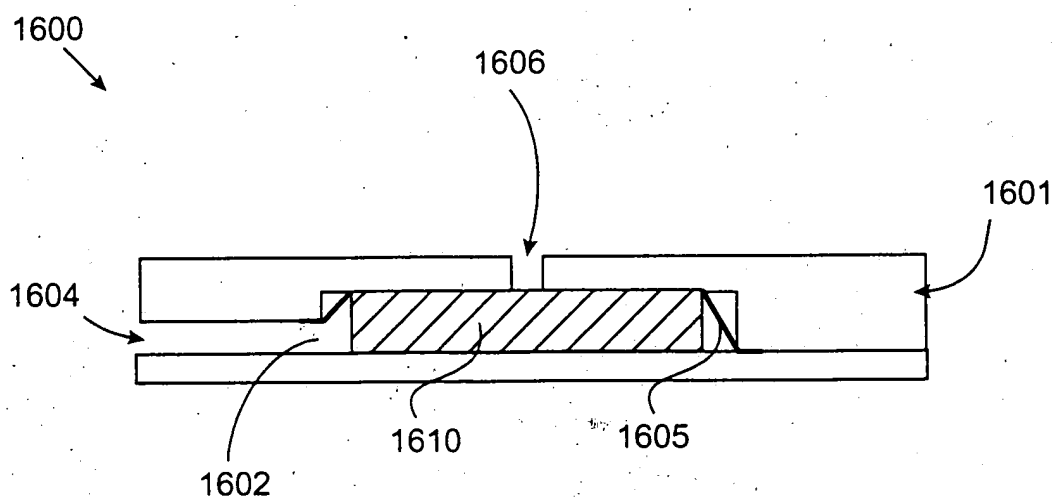


FIG. 15

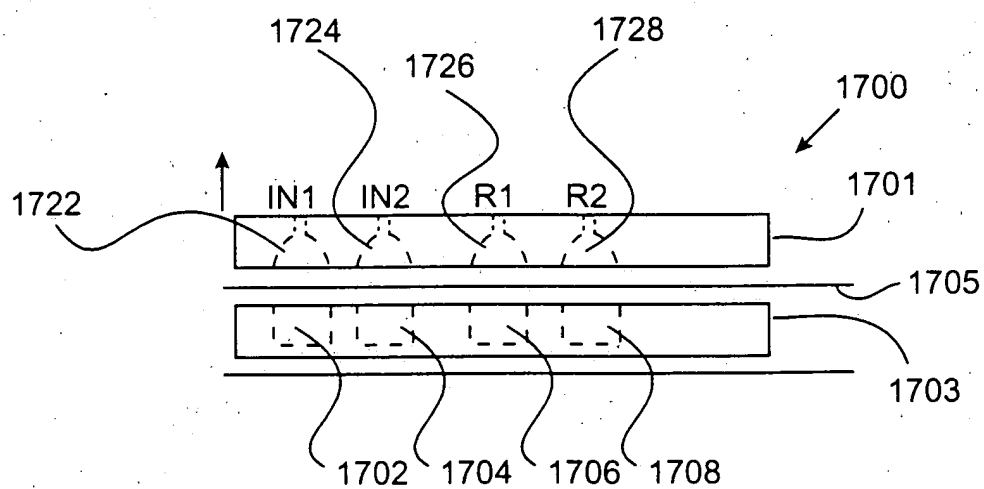


FIG. 16

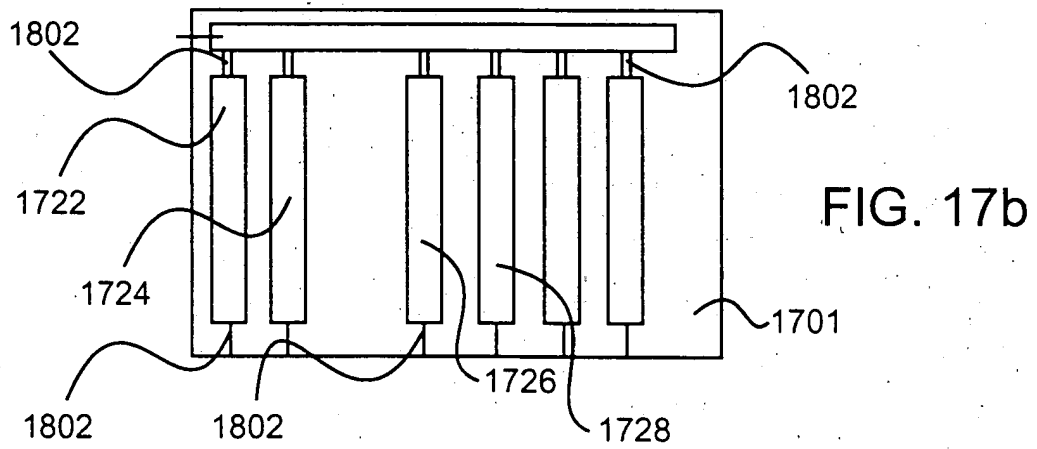
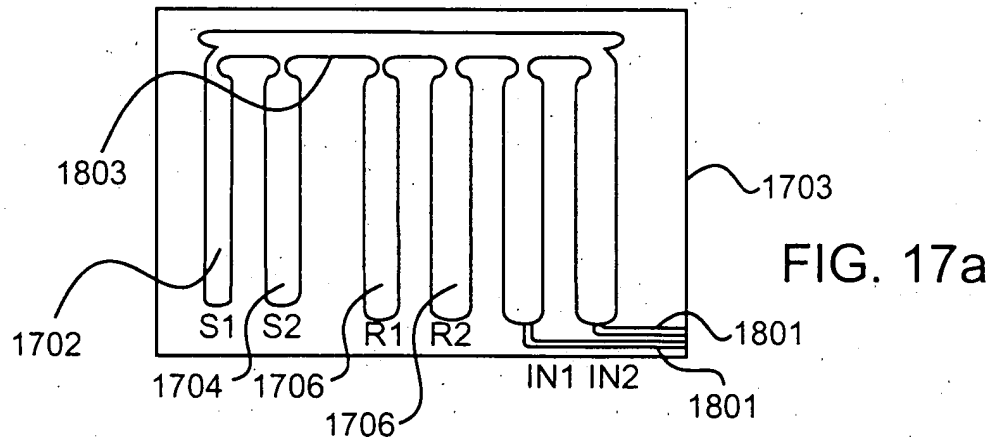
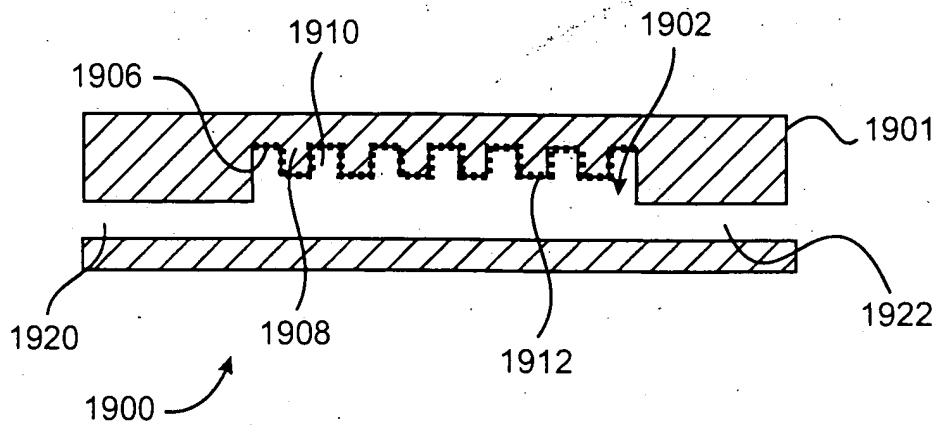


FIG. 17



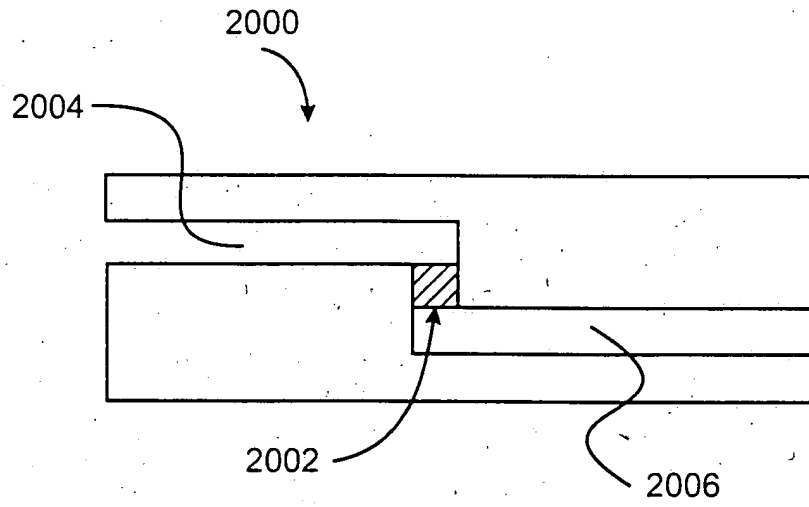


FIG. 19

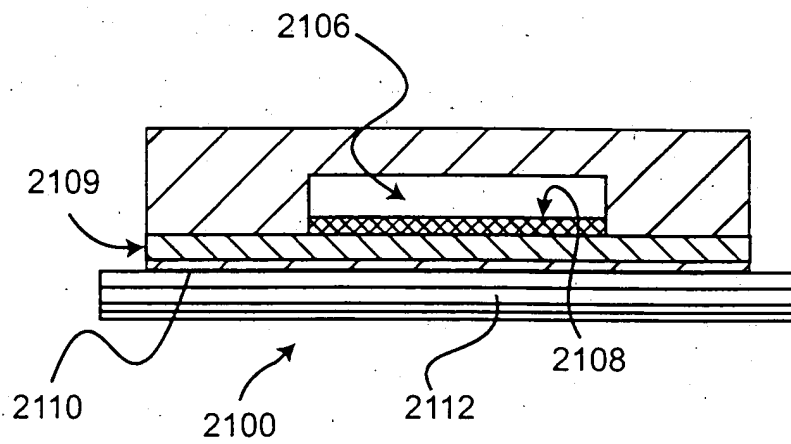


FIG. 20

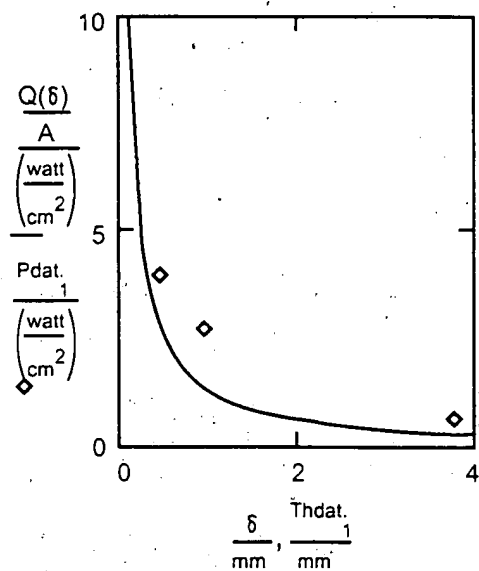


FIG. 21a

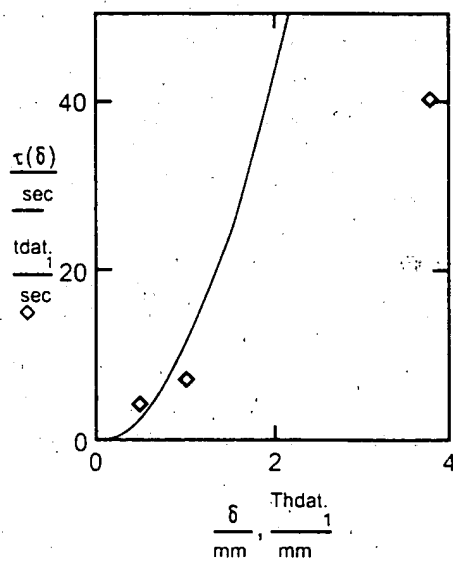


FIG. 21b

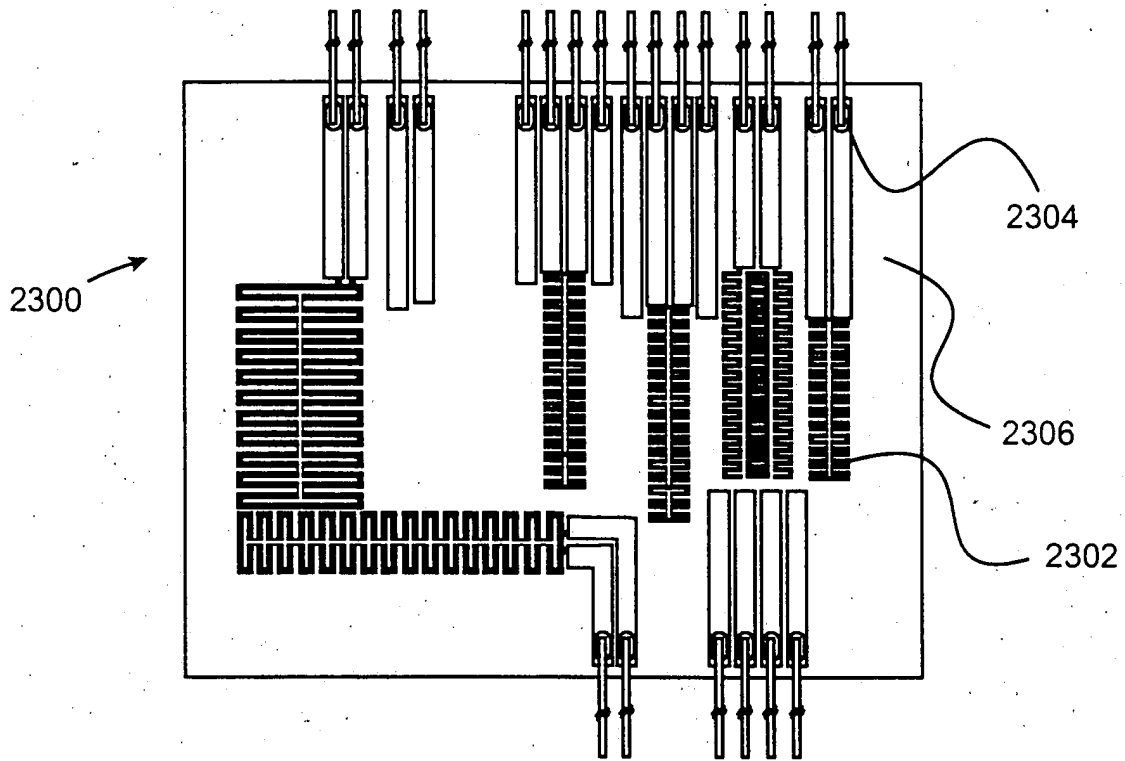


FIG. 22

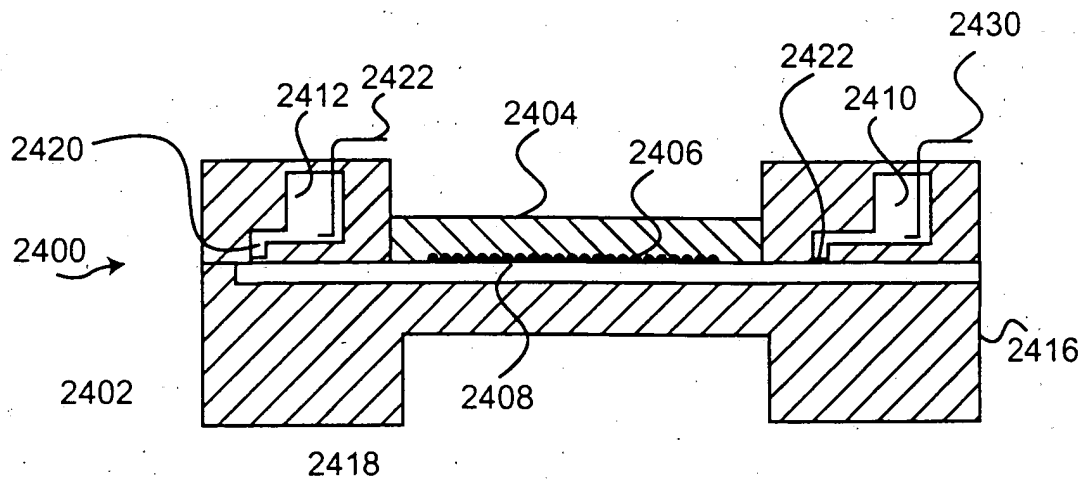


FIG. 23

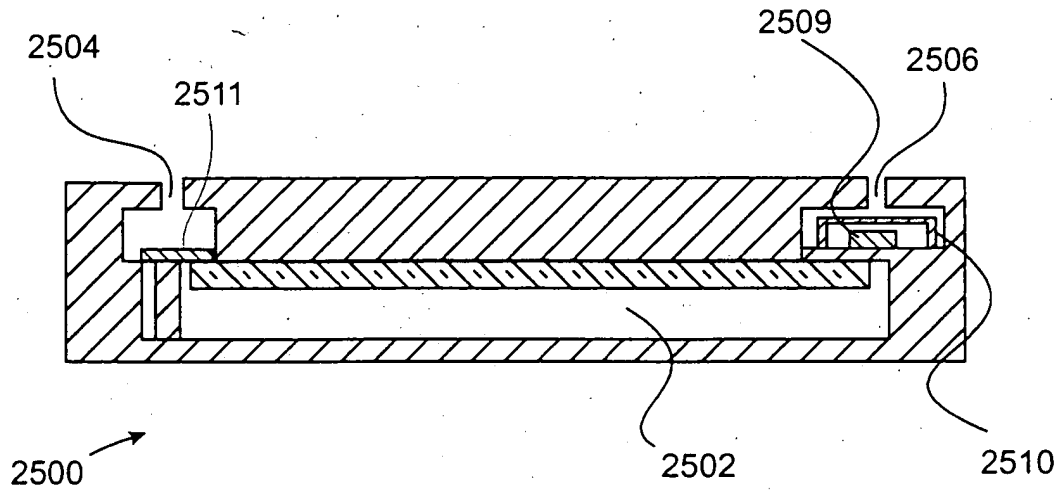


FIG. 24

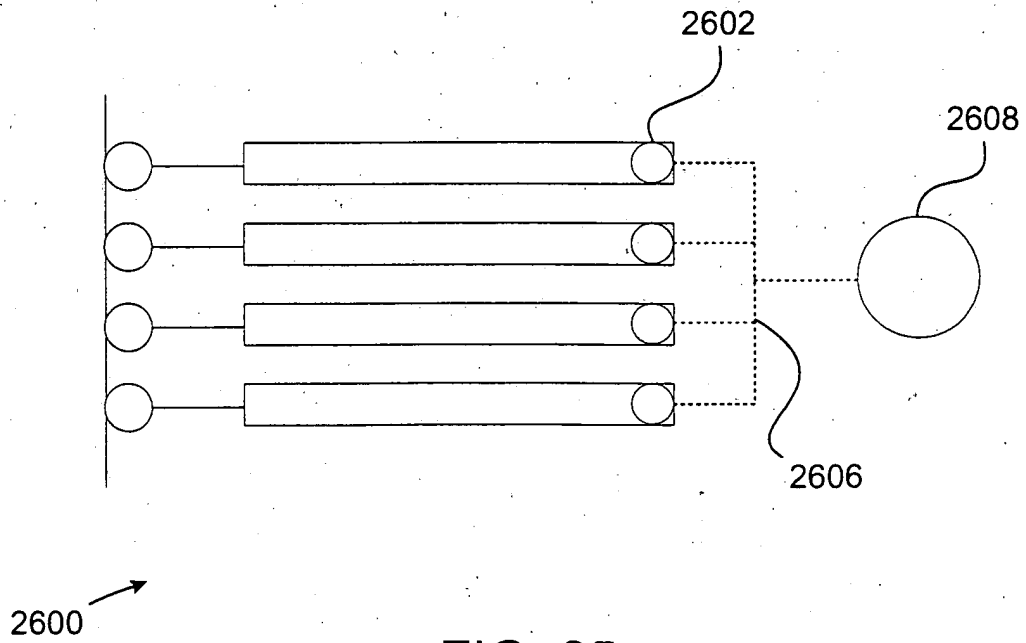


FIG. 25

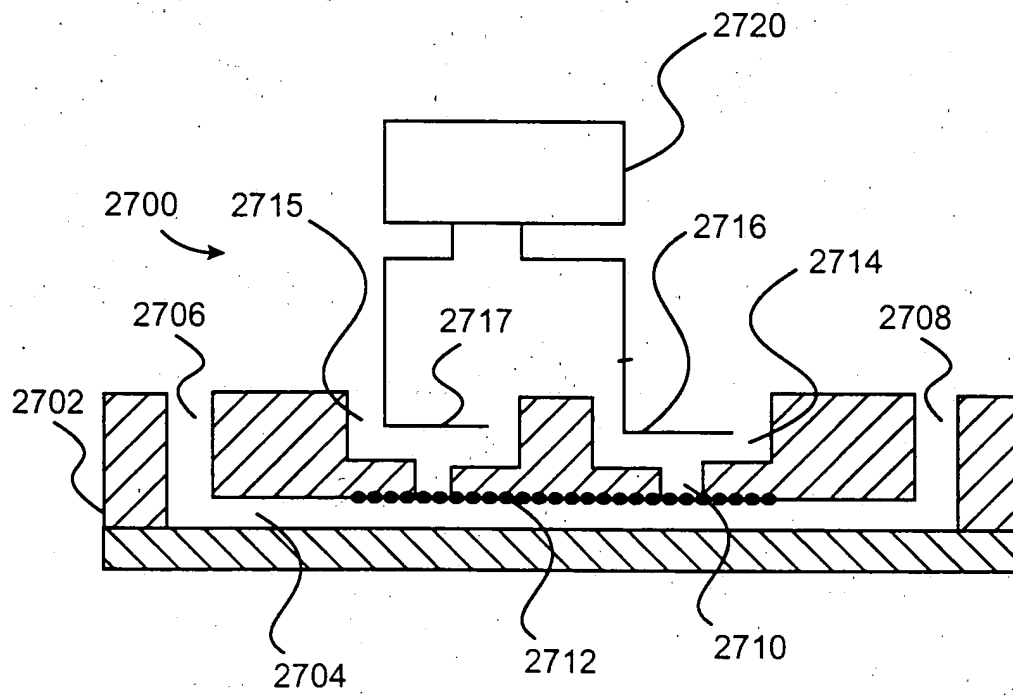


FIG. 26



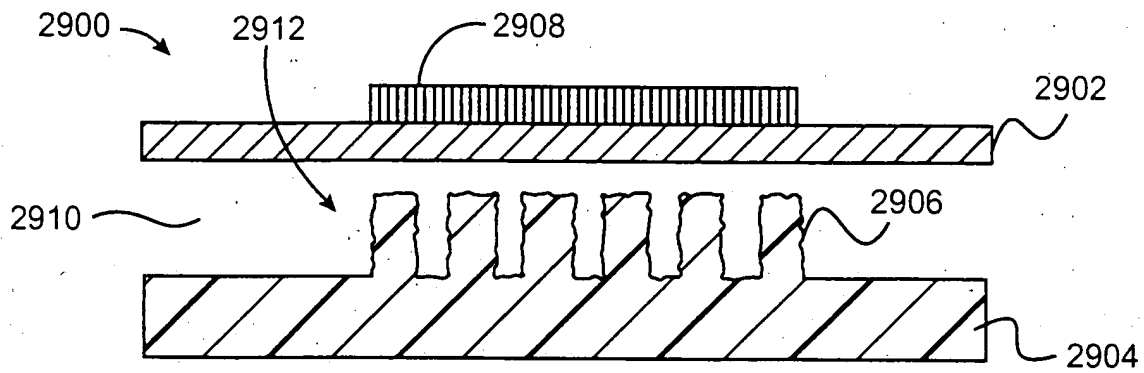


FIG. 27

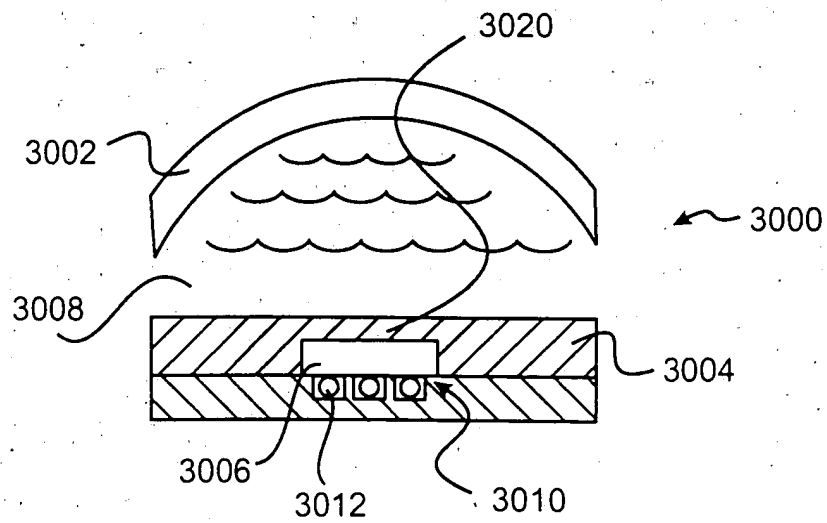


FIG. 28

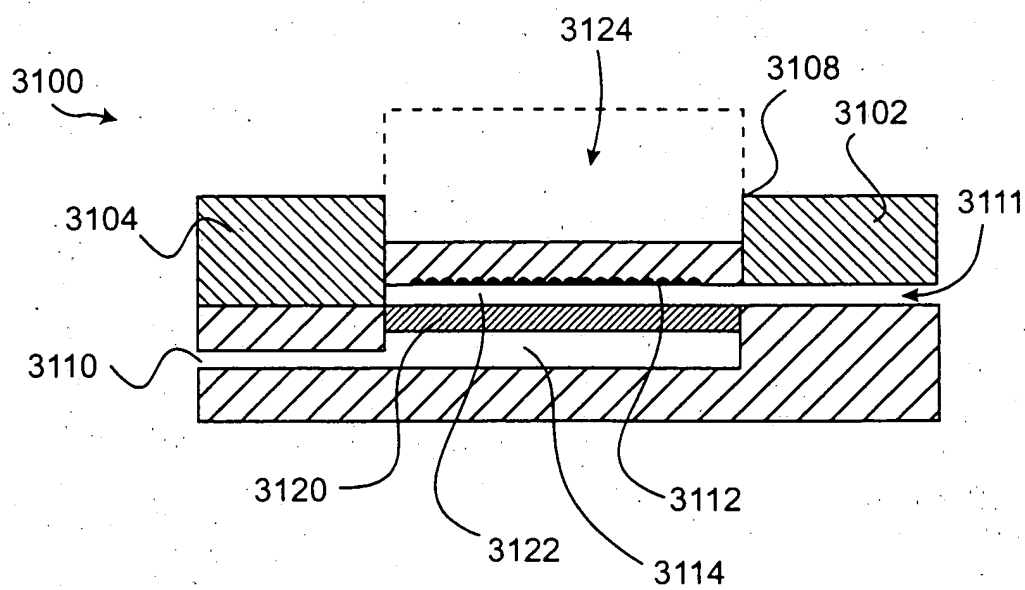


FIG. 29

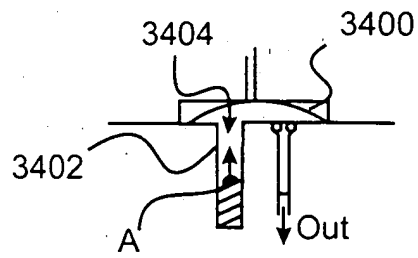


FIG. 30a

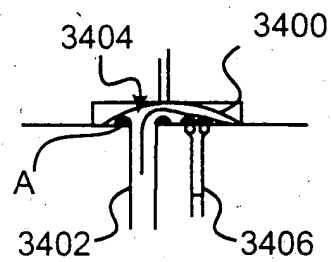


FIG. 30b

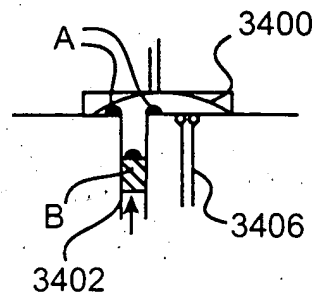


FIG. 30c

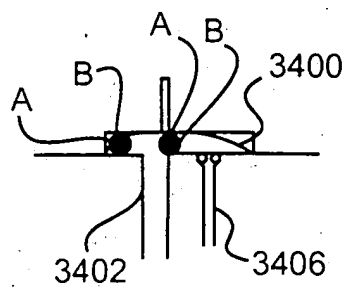


FIG. 30d

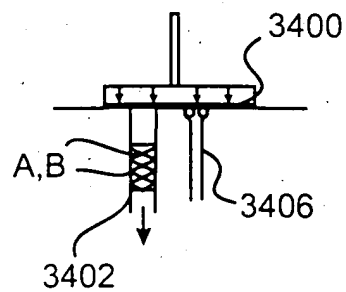


FIG. 30e

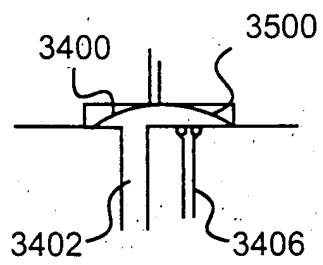


FIG. 31a

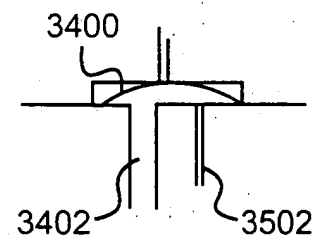


FIG. 31b

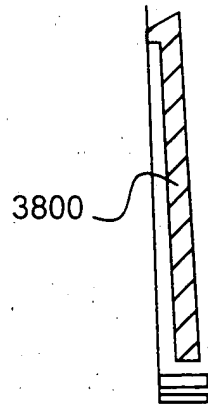


FIG. 32a

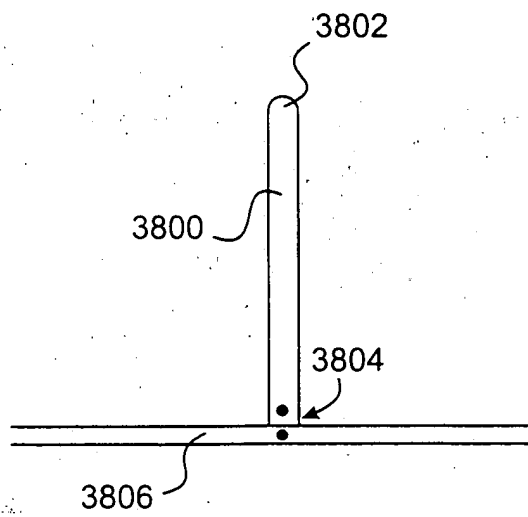


FIG. 32b

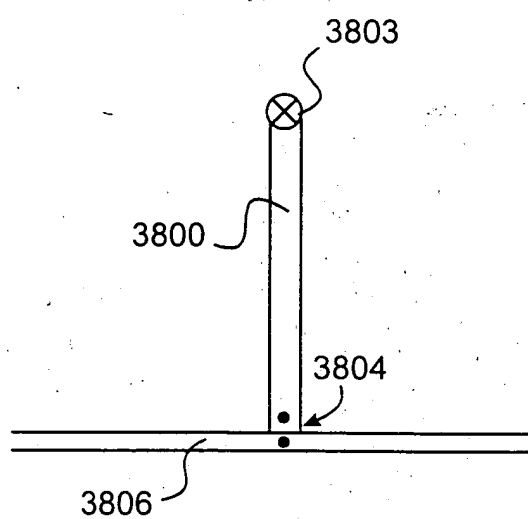


FIG. 32c

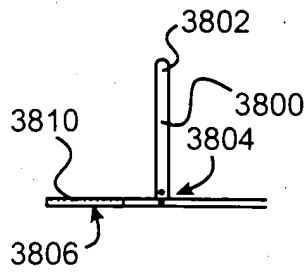


FIG. 33a

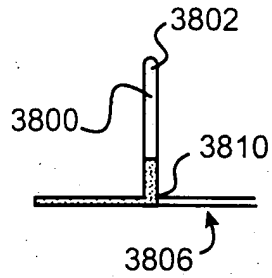


FIG. 33b

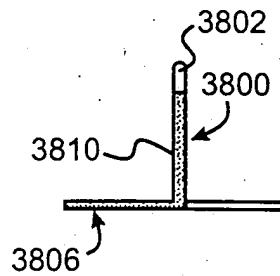


FIG. 33c

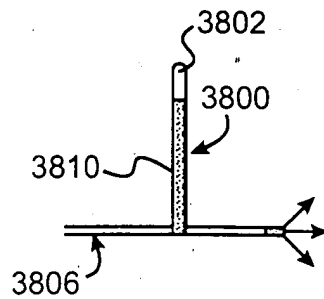


FIG. 33d

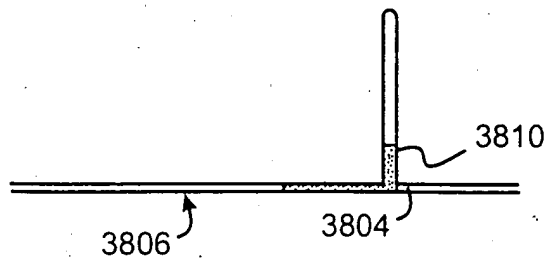


FIG. 33e

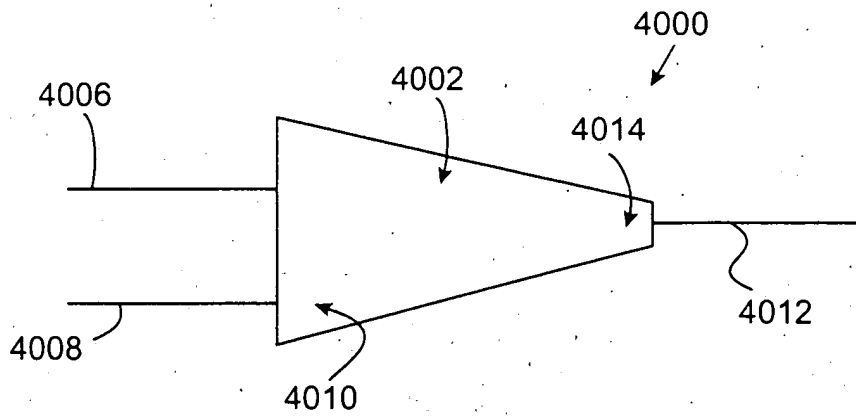


FIG. 34

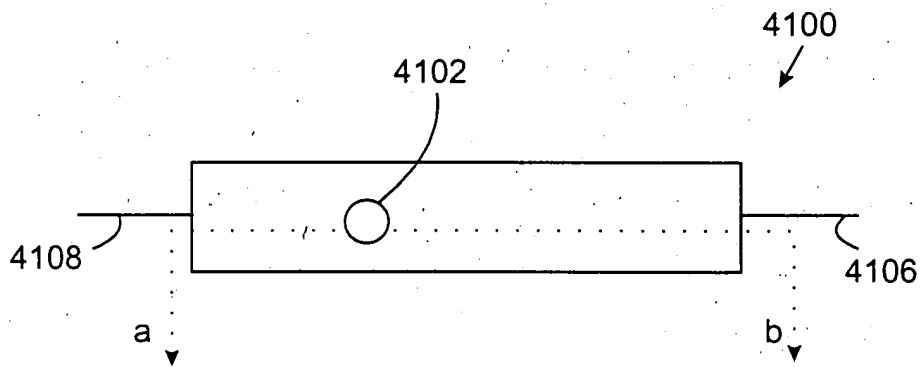


FIG. 35a

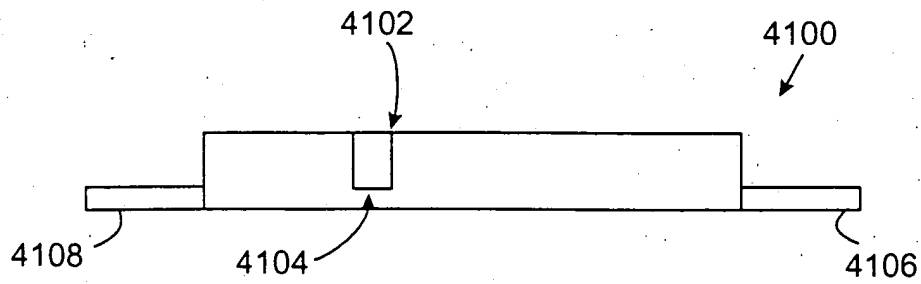


FIG. 35b



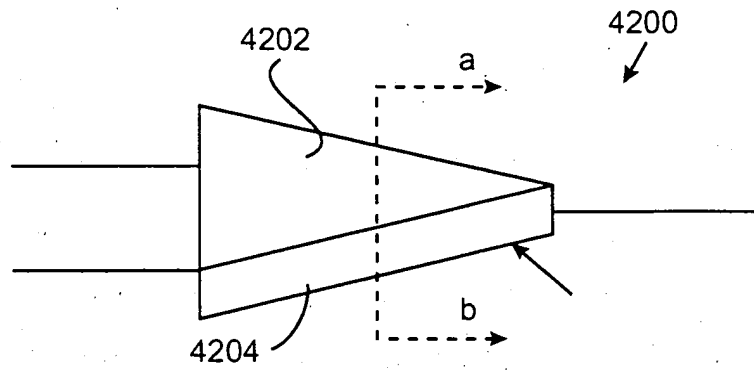


FIG. 36a

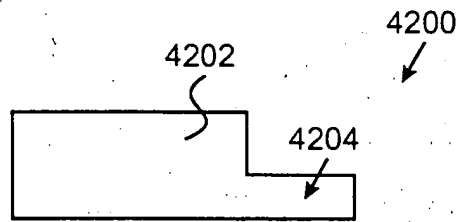


FIG. 36b

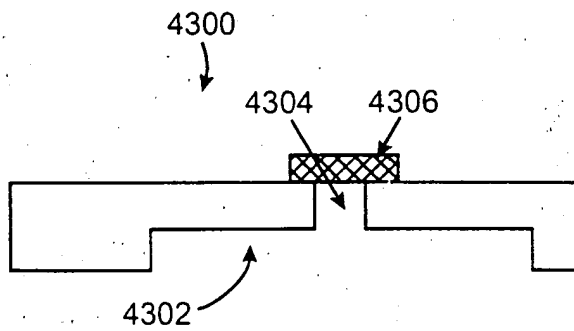


FIG. 37a

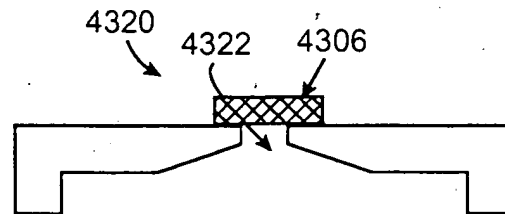


FIG. 37b

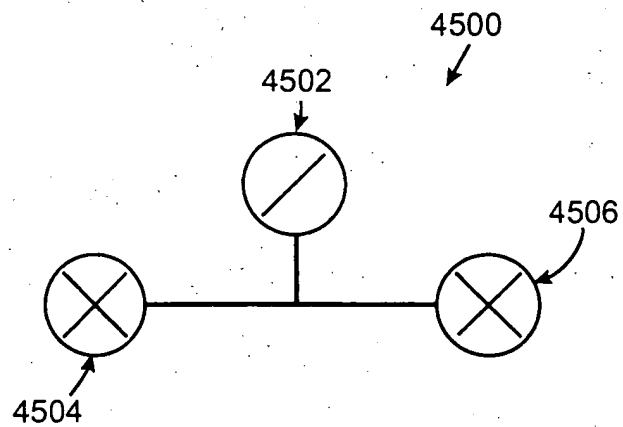


FIG. 38

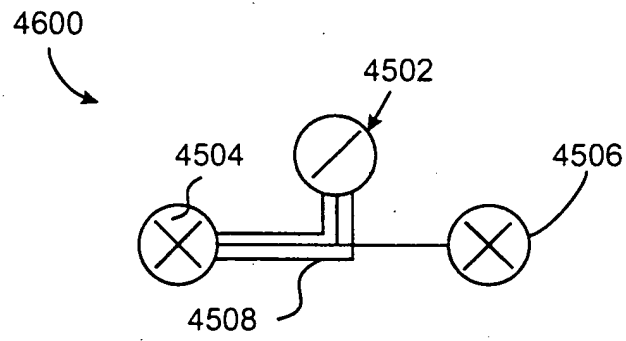


FIG. 39a

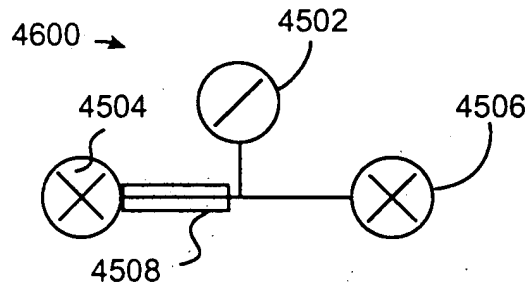


FIG. 39b

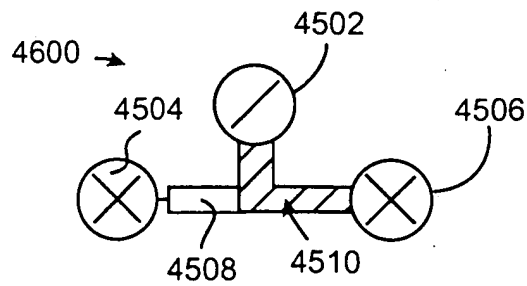


FIG. 39c

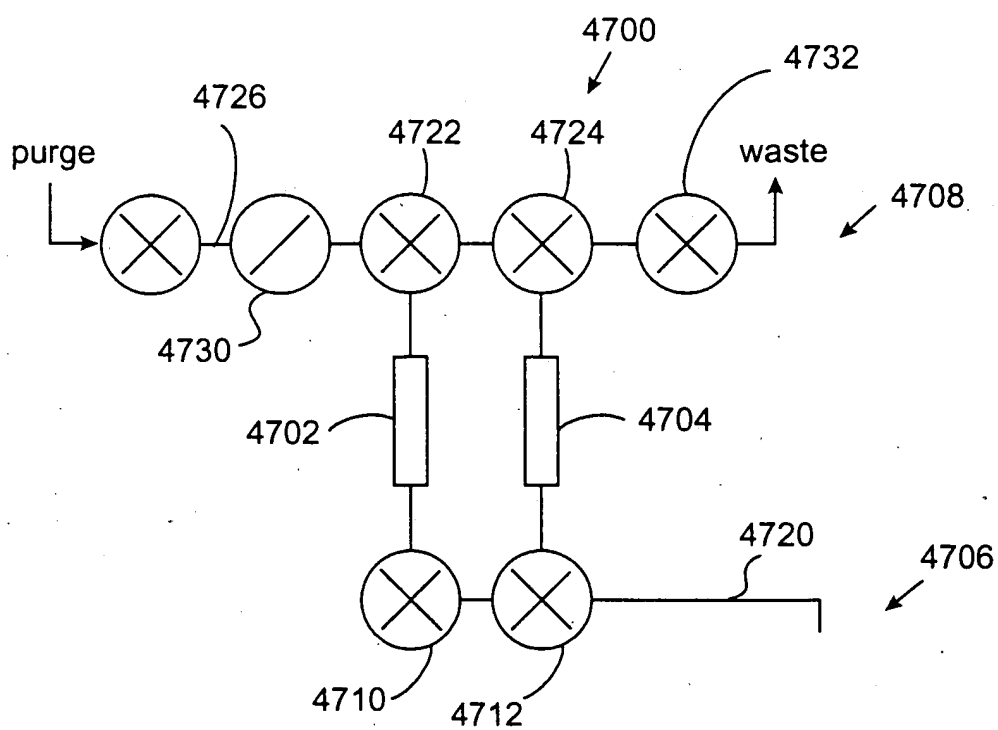


FIG. 40

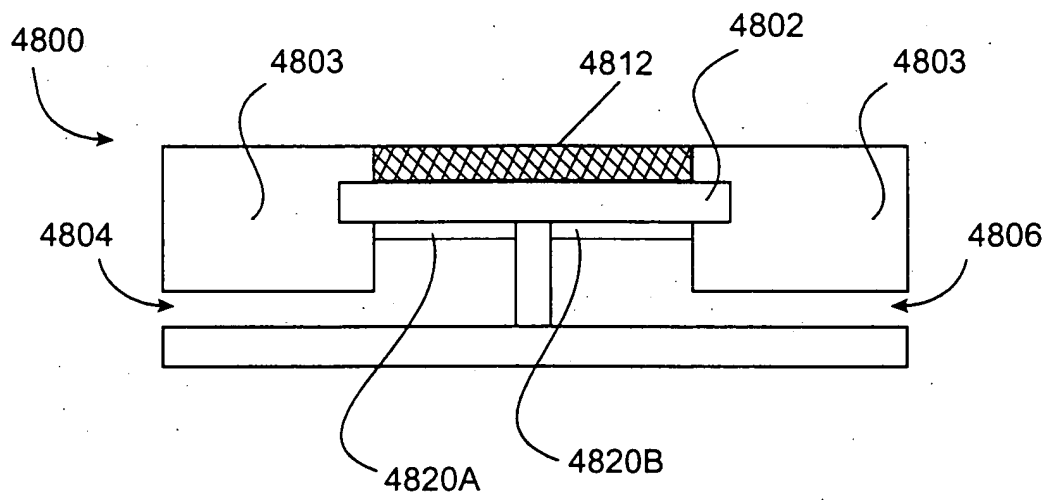


FIG. 41

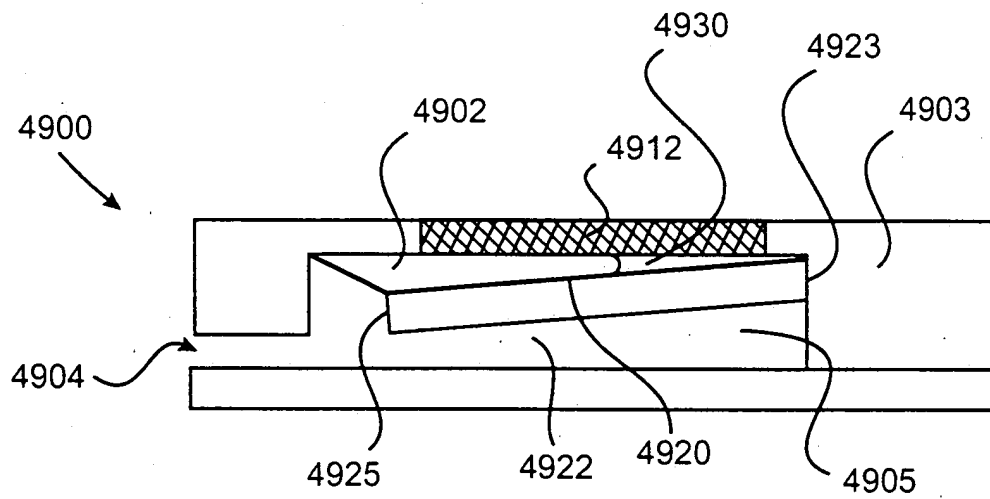


FIG. 42

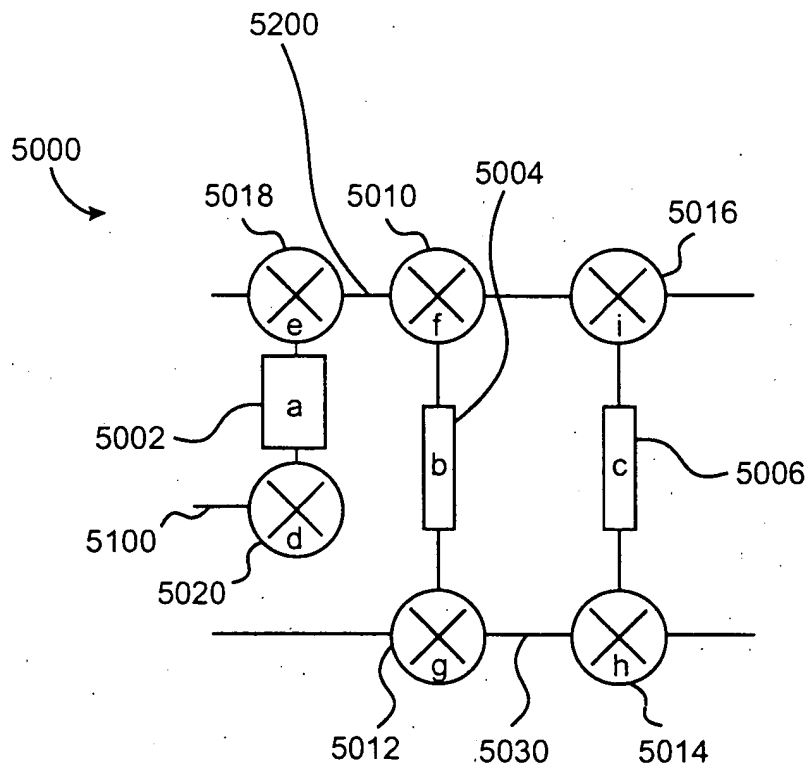


FIG. 43

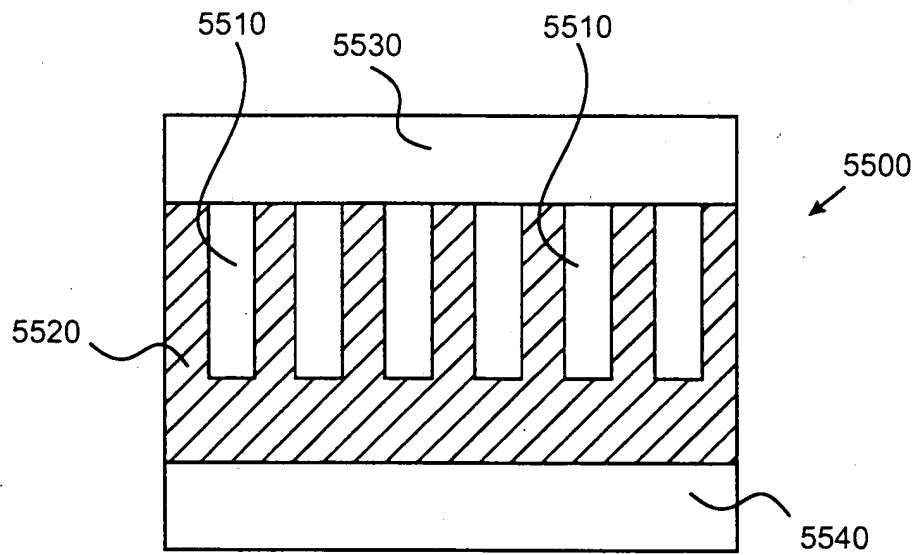


FIG. 44a



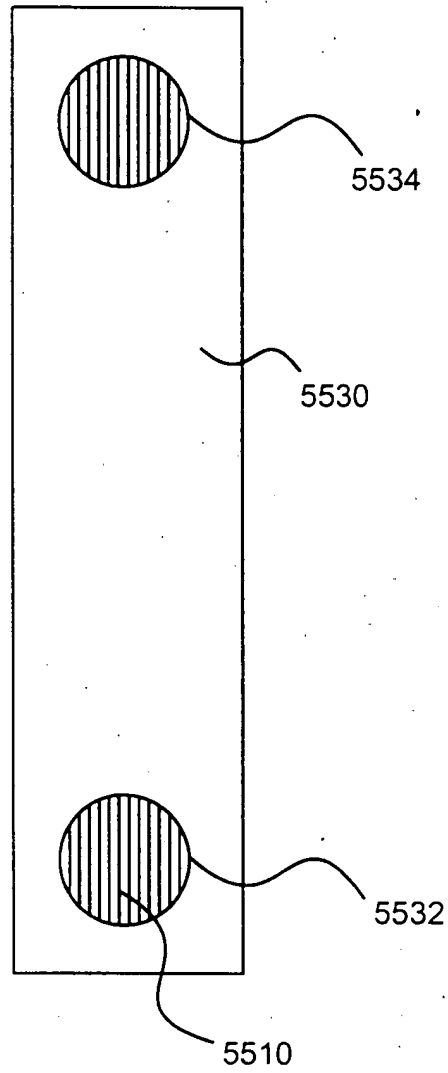


FIG. 44b

Transient heating in water

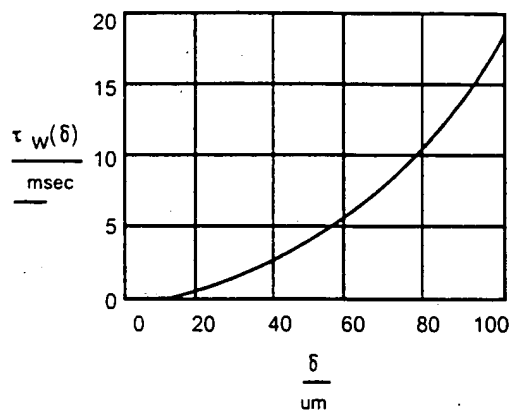


FIG. 44c

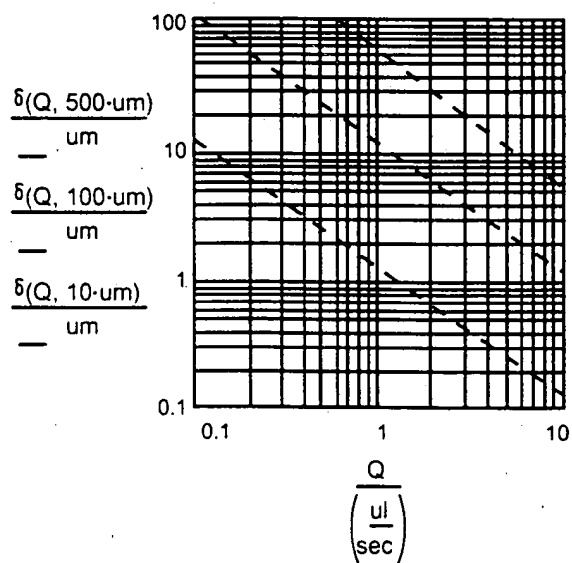
Half-gap required in flow-through heating structure  
(water,  $L=1\text{ mm}$ ,  $w=10, 100, 500\text{ }\mu\text{m}$ )

FIG. 44d

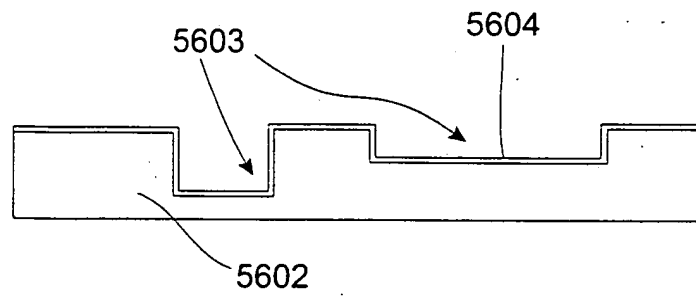


FIG. 45a

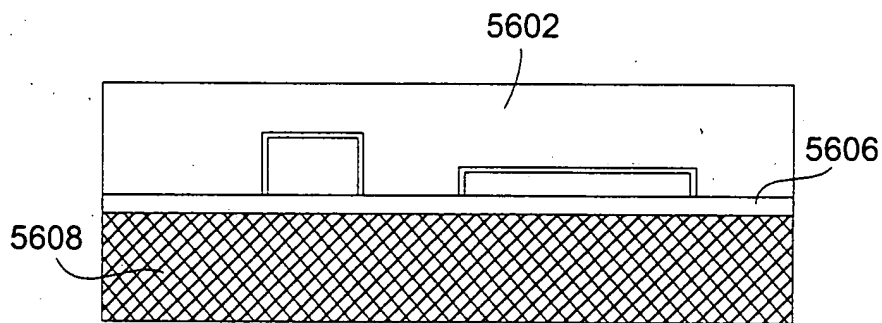


FIG. 45b

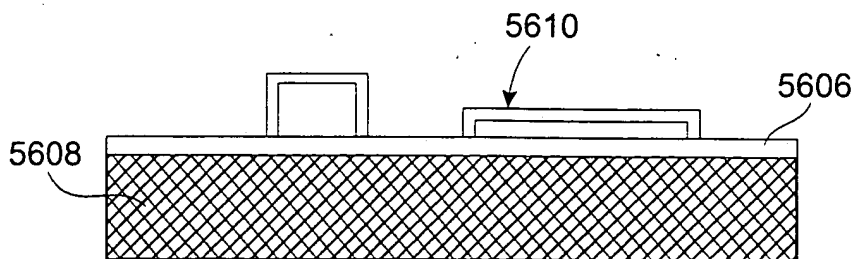


FIG. 45c

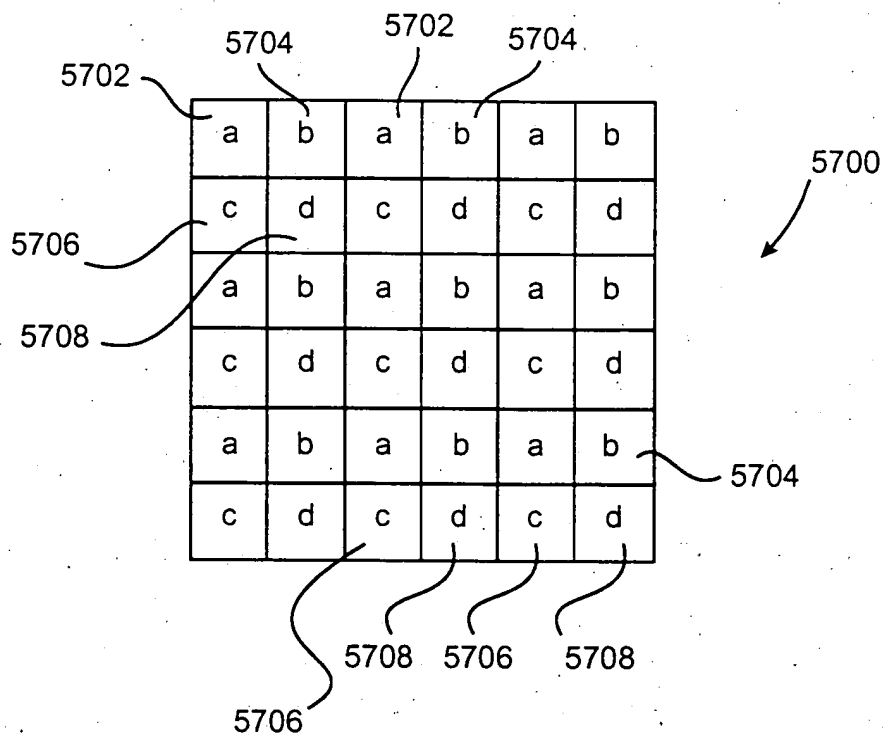


FIG. 46a

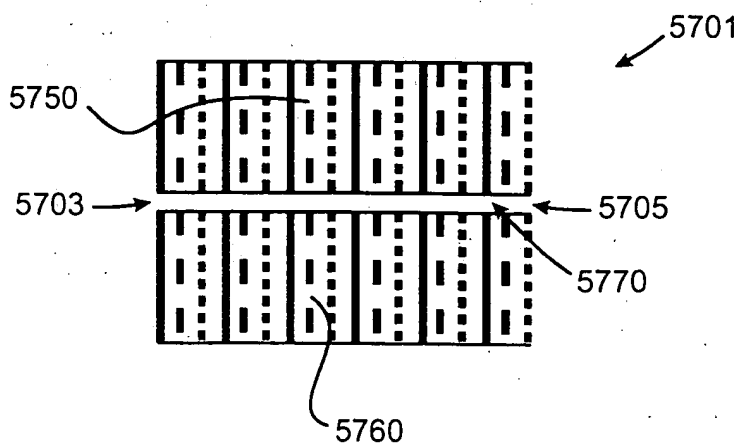


FIG. 46b

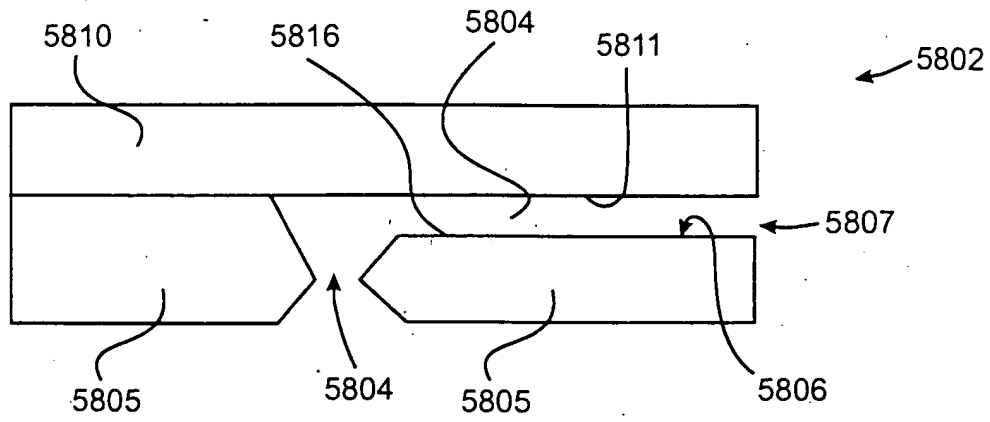


FIG. 47a

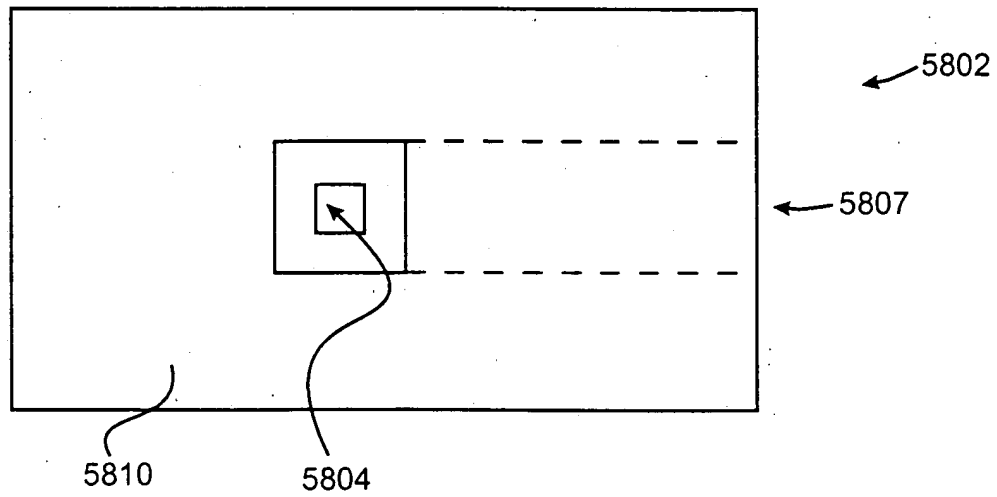


FIG. 47b

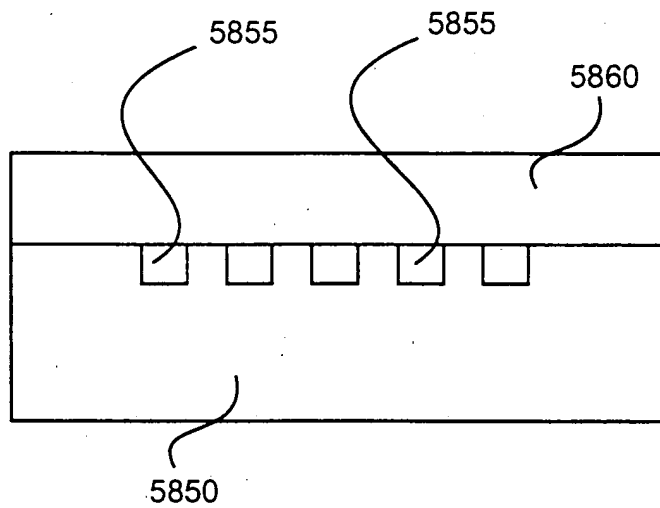


FIG. 47c

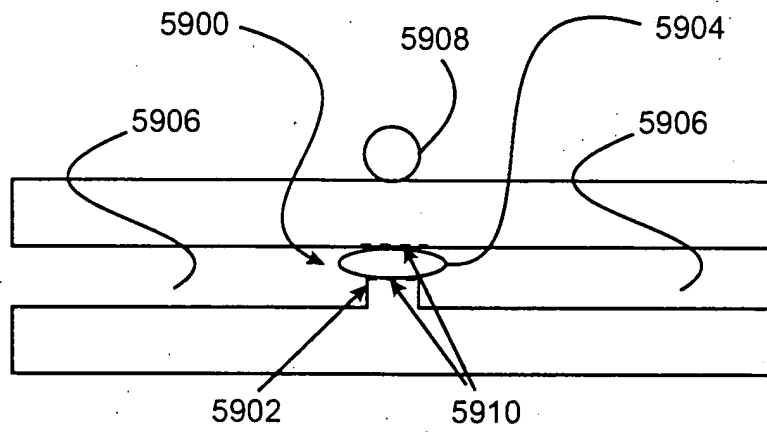


FIG. 48

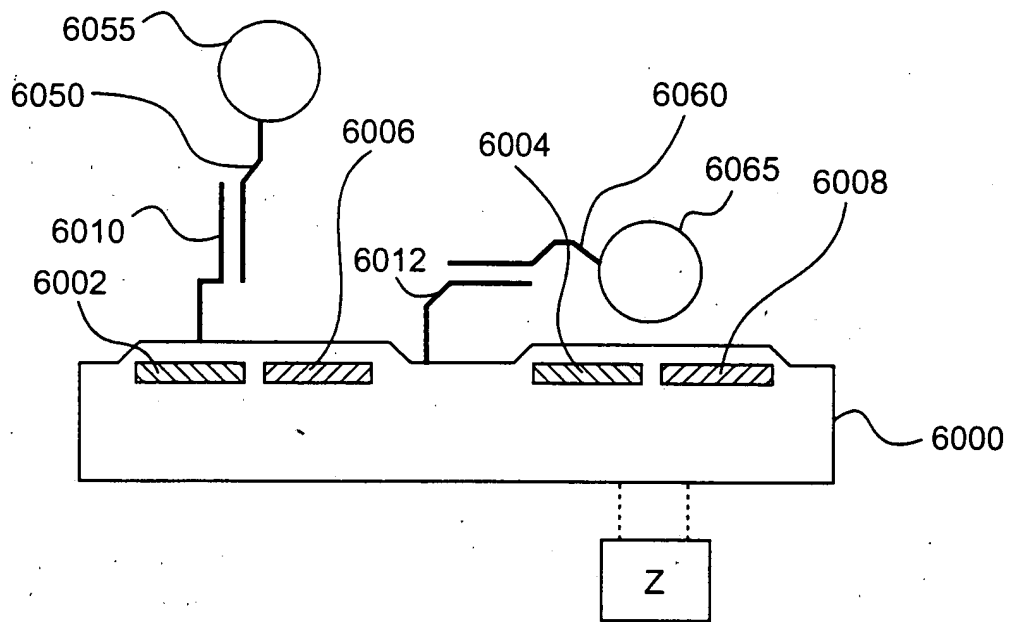


FIG. 49



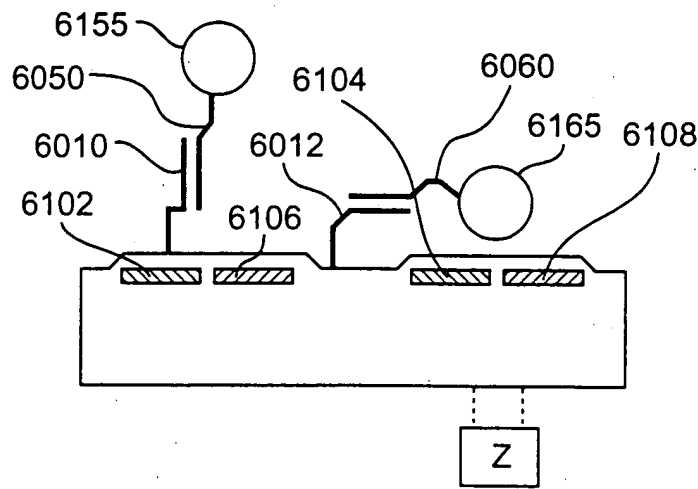
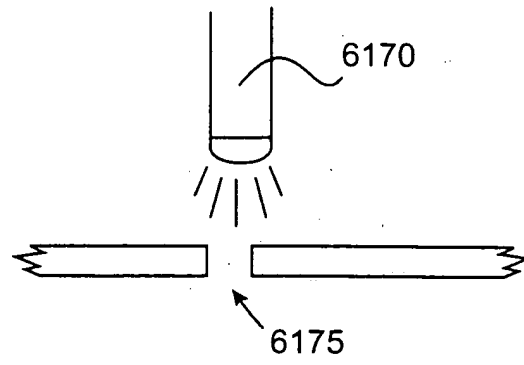


FIG. 50

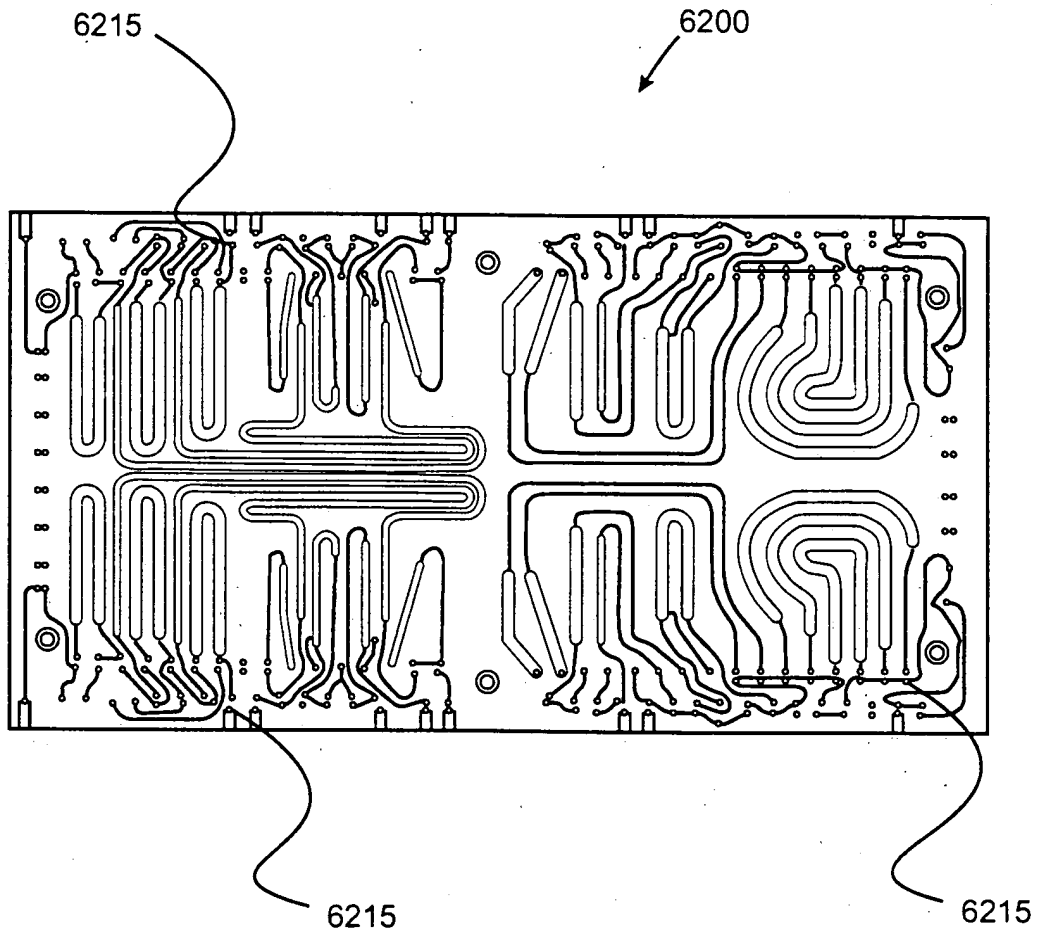


FIG. 51

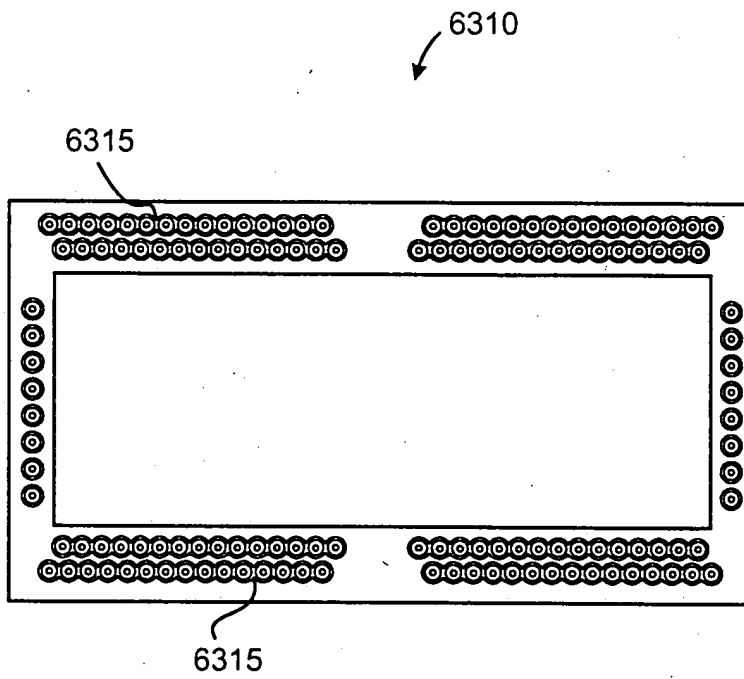


FIG. 52

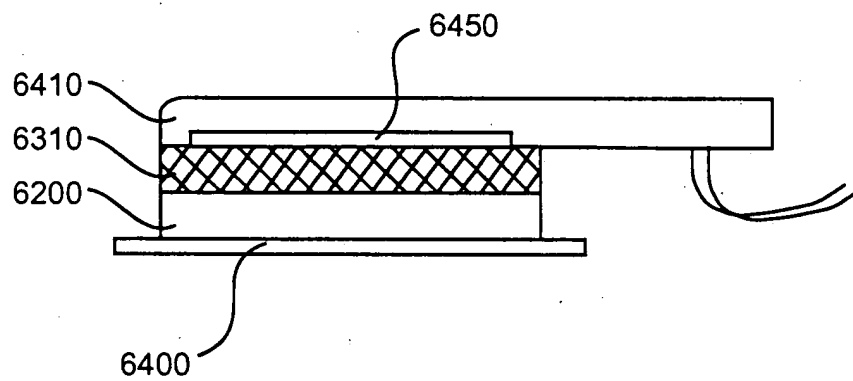


FIG. 53

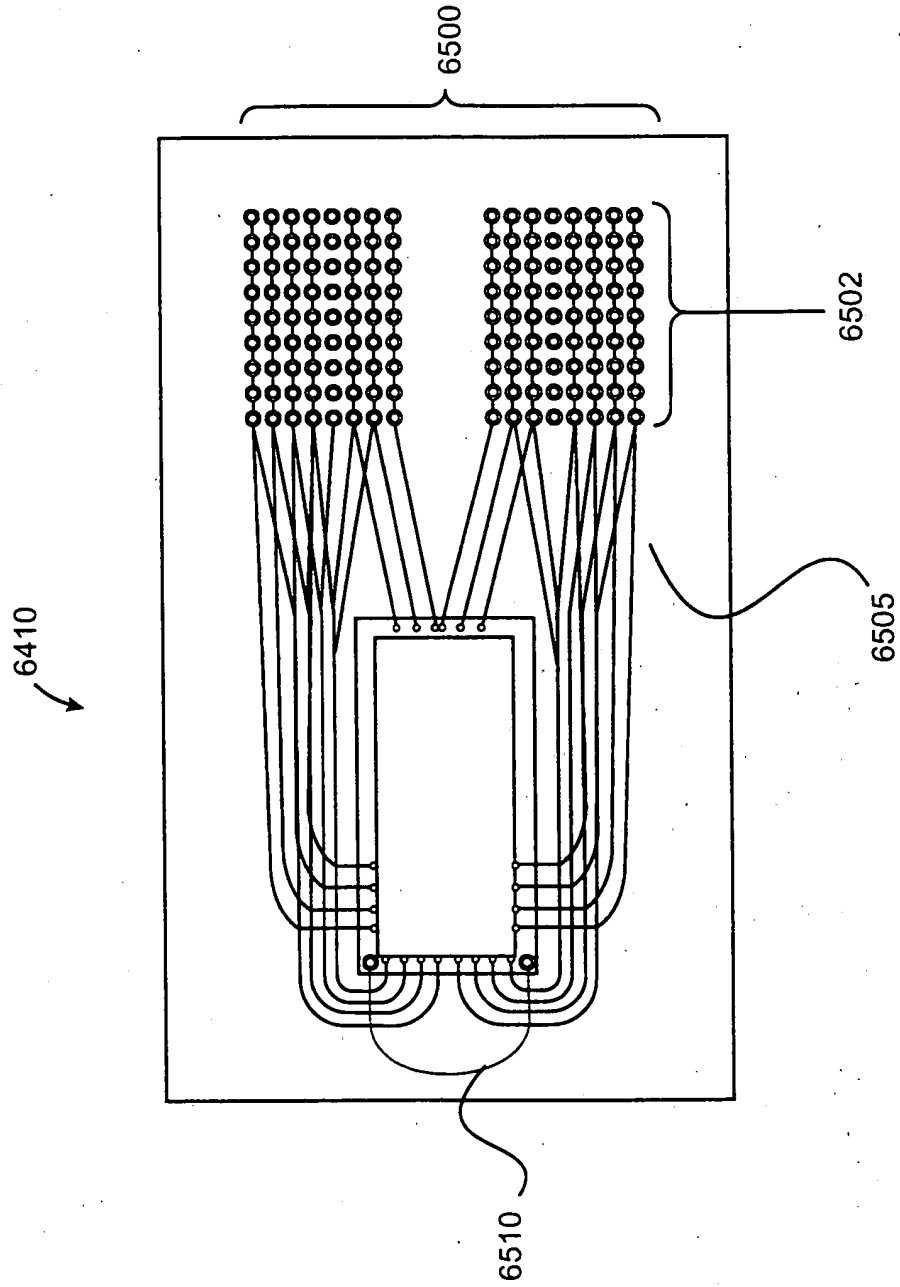


FIG. 54

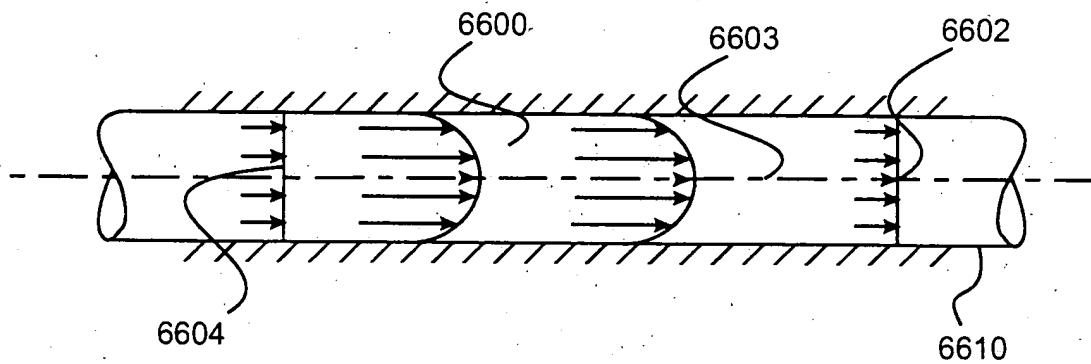


FIG. 55a

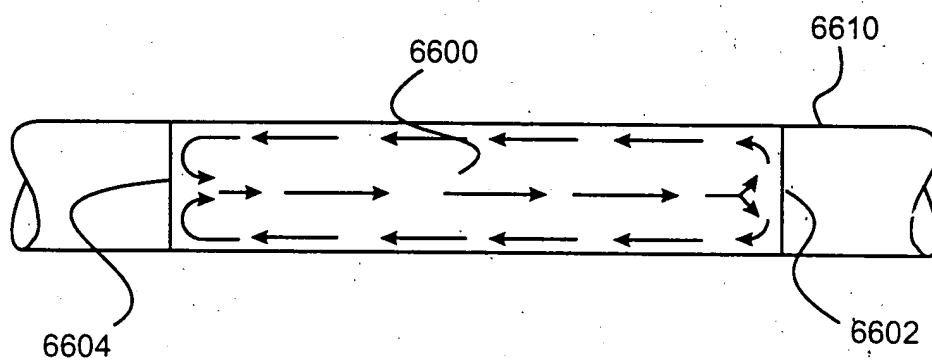


FIG. 55b